



Navigation Rules (Inland)





Navigation Rules

What is important to know:

- How to avoid a boating accident
- How to know you are on a collision course
- Rules when head-on, crossing, overtaking, & a difference in maneuverability
- Use of sound signals to avoid collision
- Navigation lights and day shapes
- Navigation rules relating to diving (e.g. scuba)
- Navigation rules relating to homeland security



Learning Objectives

By the end of this chapter, the participant will be able to:

1. Define the Navigation Rules relative to vessel hierarchy, over-taking, head-on and crossing situations.
2. Define stand-on and give-way.
3. Describe a technique to determine if risk of collision exists in a crossing circumstance.
4. Describe the four basic navigation lights, colors, configuration and arcs of visibility.

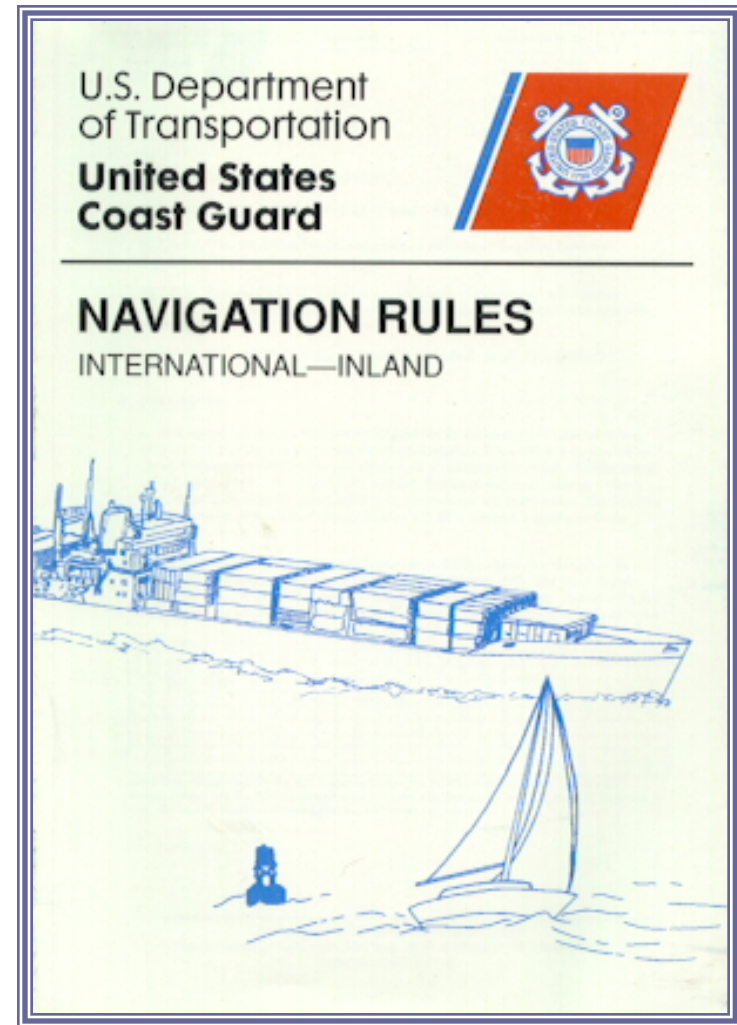
Learning Objectives (cont.)

By the end of this chapter, the participant will be able to:

5. Describe the purpose of navigation lights and when they are required.
6. Describe sound signals use for maneuvering, obstructed vision and danger.
7. Describe the flags required for diving (e.g., scuba).
8. Describe boating-related situations wherein homeland security comes into play.

Navigation Rules

Make it clear who has the right-of-way so that collisions don't happen





Navigation Rules

Specify:

- Sound signals
- Lights
- Day shapes
- Flags

Used to indicate maneuverability and/or what action an operator intends to take



Sound Signals

In head-on and overtaking situations, sound signals can be used to communicate intent to maneuver, and to give the go-ahead or deny it

- Typically only used by professional mariners/large boats.
- If used with small/recreational boats, it's at idle speeds and in congested areas.



Sound Signals

Protocol:

- To indicate you want to pass another vessel with them on your port side, you sound one short blast, and two if you want to put them on your starboard side.
- If understood and okay with other operator they respond with identical signal. If not understood or okay, then they respond with five short blasts.



More on Sound Signals

Five short (1 sec) blasts =
Danger/Doubt all situations

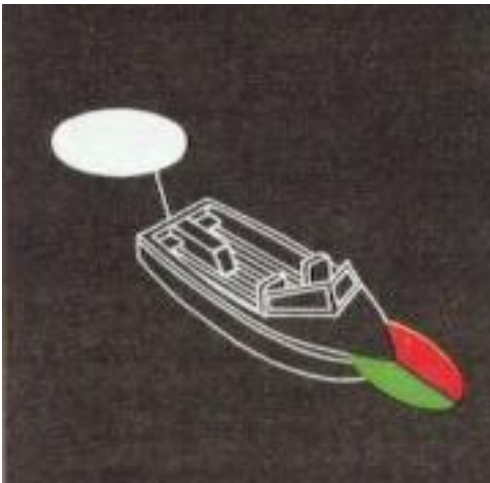
One long (4-6 sec) blast = Vision
obstructed

Three short blasts = Backing up

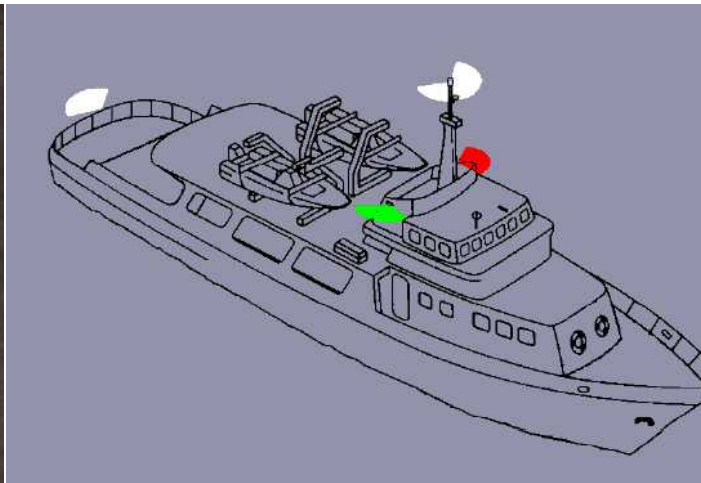
There are more

Lights

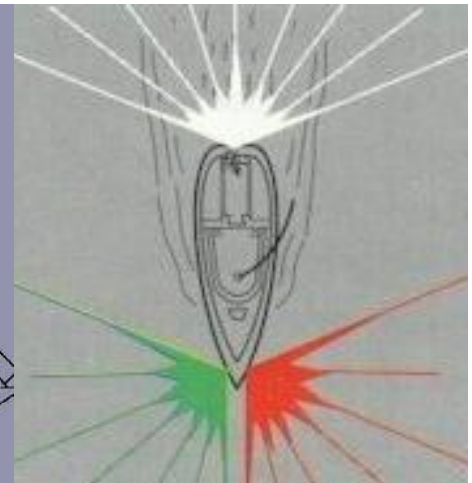
At night and in limited visibility, boat lights indicate vessel size, maneuverability/activity, e.g.:



*Powerboat <12m
underway*



*Powerboat 12m
to <50m underway*








*Sailboat
under sail*



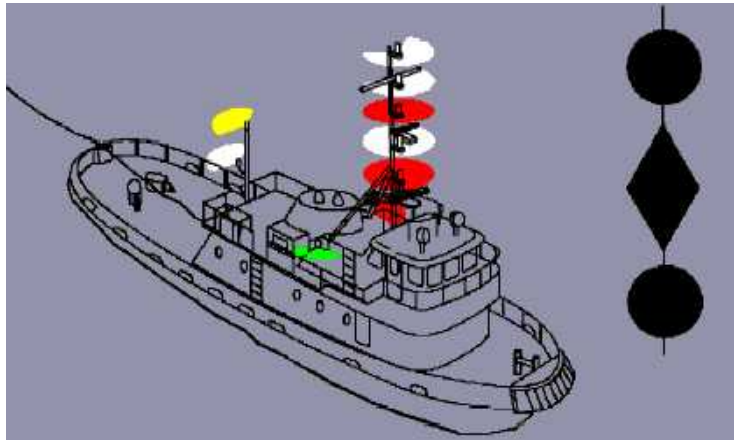
Lights and Day Shapes

Day Shapes indicate maneuverability/activity in the daytime, e.g.:

Vessel Status	Lights	Day shape
Not under command		
Engaged in Fishing		
Towing	Two white masthead (225°) lights in a vertical line, yellow stern light	

Lights and Day Shapes

The combination of lights and day shapes tell you what you need to know, e.g.:



Side lights and masthead plus stern white lights = powerboat underway

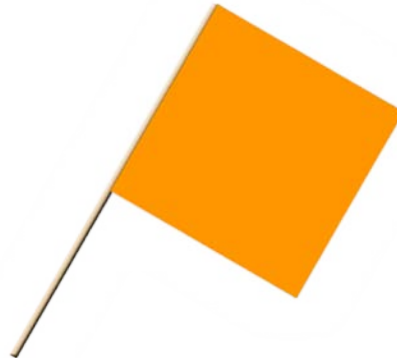
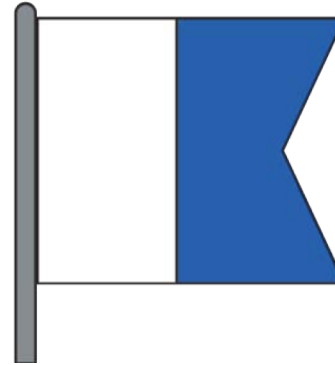
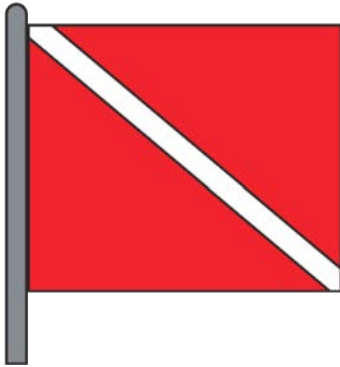
White-over-white masthead lights = towing at night

Red-over-white-over-red lights = restricted maneuverability

Yellow stern light = towing

Day shape : restricted maneuverability

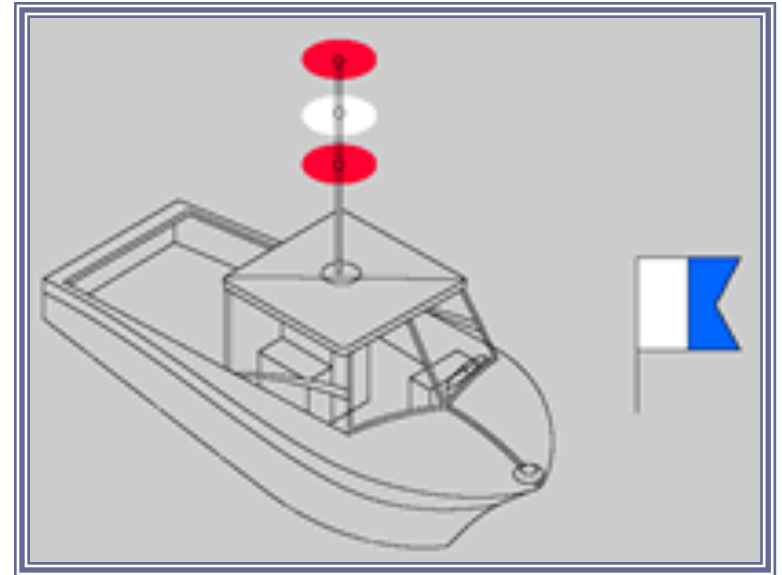
Informational/Warning Flags and Pennants



Flags

Flags can be another indicator of maneuverability

Example: For diving operations, Federal law requires the blue/white "Alpha Flag" (day), and Red/White/Red lights (night)



Flags

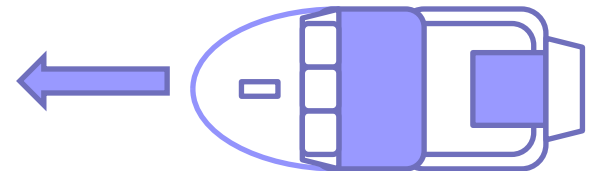
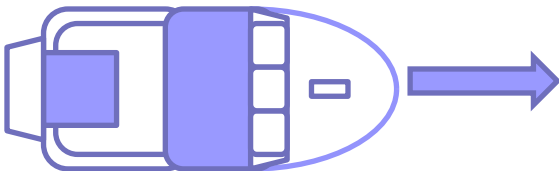
State/Local laws can require the Red/White "diver-down" flag & speed/distance limits

Example: *Idaho* -
Unlawful to operate a
vessel within one
hundred (100) feet of
Alpha or Dive flag...



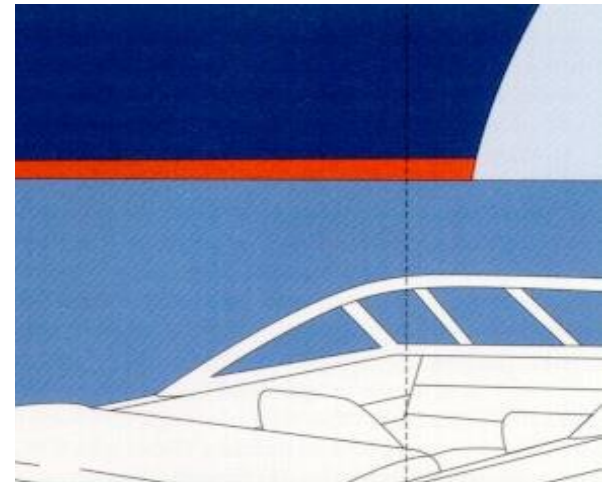
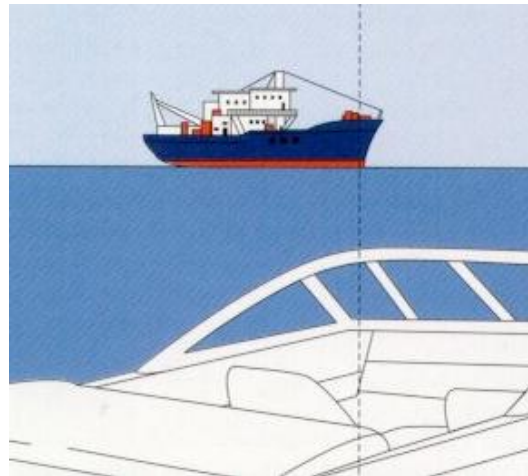
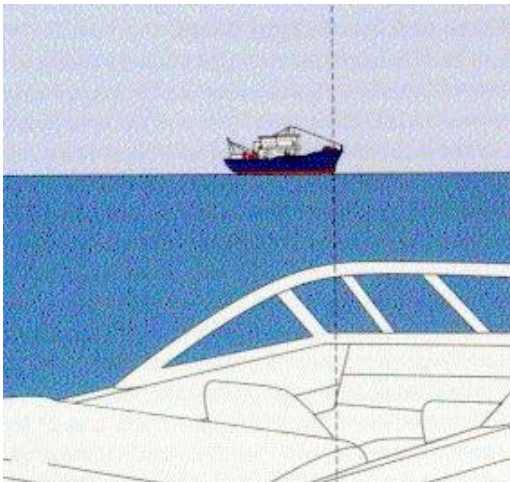
Right-of-Way

The need to know who has the Right-of-Way comes into play when two vessels are on a collision course.



How can you tell if you are on a collision course?

When the other vessel at a constant position relative to your boat, with decreasing distance from your boat





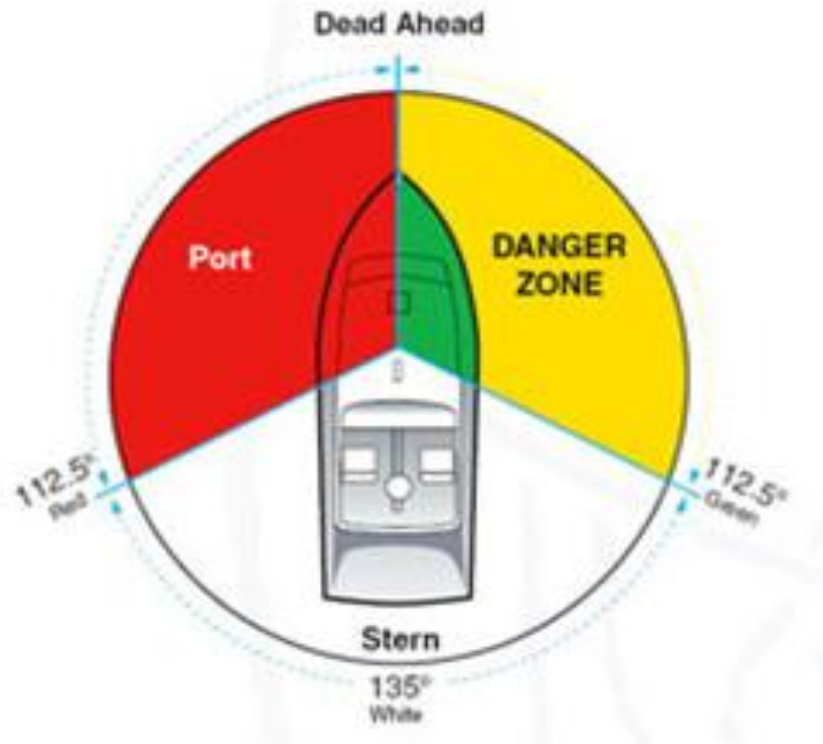
Right-of-Way Terminology

A vessel that has the right-of-way is called the **"Stand on"** and is required to maintain course and speed.

A vessel that does not have the right-of-way is call the **"Give way"** and is required to change course and/or speed

More Right-of-Way Terminology

Danger Zone - you must yield the right of way to any boat within your Danger Zone



If you are the Give-Way vessel,
exaggerate your change in course/
speed to make your intent clear



Maneuverability

Degree of maneuverability is one factor that drives who has the right-of-way on the water





Maneuverability Hierarchy

Highest priority to lowest:

1. **Not under command** - unable to maneuver
2. **Restricted maneuverability** - due to nature of work, etc.
3. **Fishing** - gear that restricts ability to maneuver (trawlers)
4. **Sailing** - vessel under sail, not propelled by machinery
5. **Powerboat** - vessel propelled by machinery
6. **Seaplane** - most maneuverable of all

Each gives way to all above it on the list



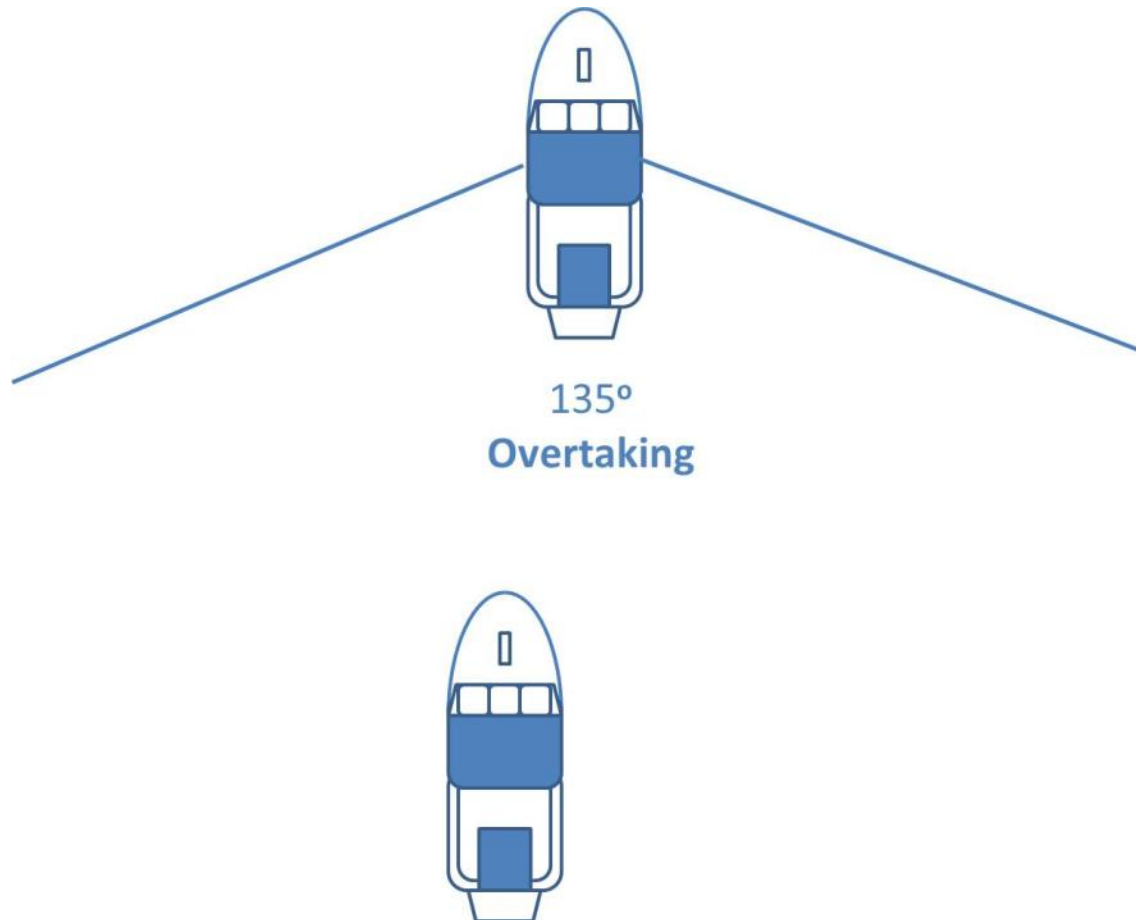
Overtaking, Head-on & Crossing

In addition to maneuverability, Navigation Rules define responsibility when:

1. One boat is overtaking another
2. Boats approach each other head on
3. Boats are crossing paths

Overtaking Defined

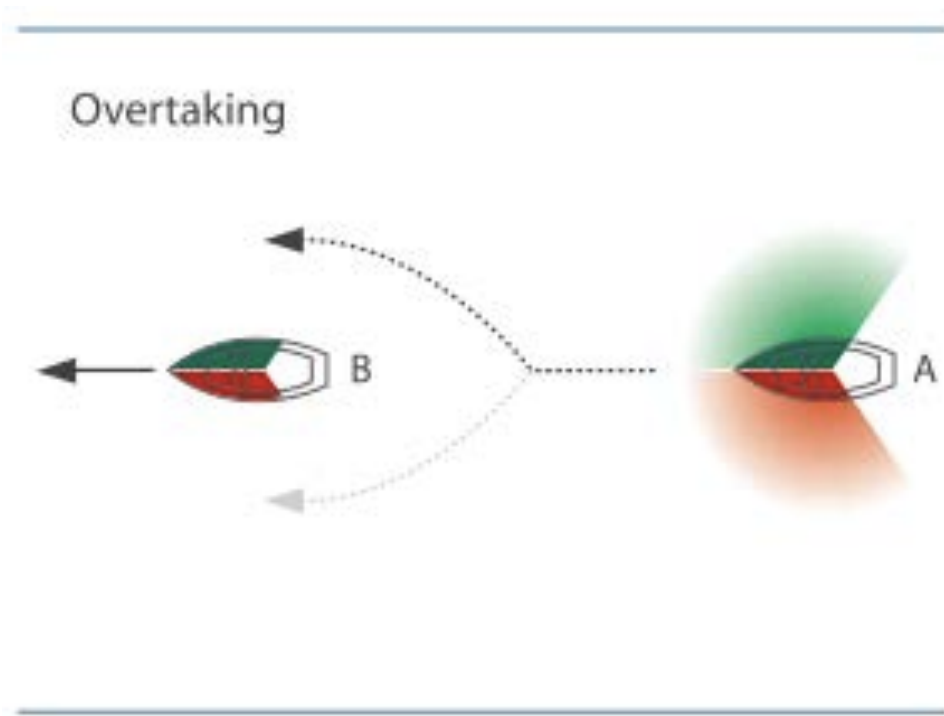
135 degree arc



Overtaking Rule

If you are overtaking, then you Give Way

And you remain the Give Way vessel until there's no risk of collision



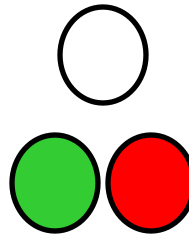
Head-on Rule

Both boats are responsible for giving way *(commonly port-to-port)*



Knowledge Check

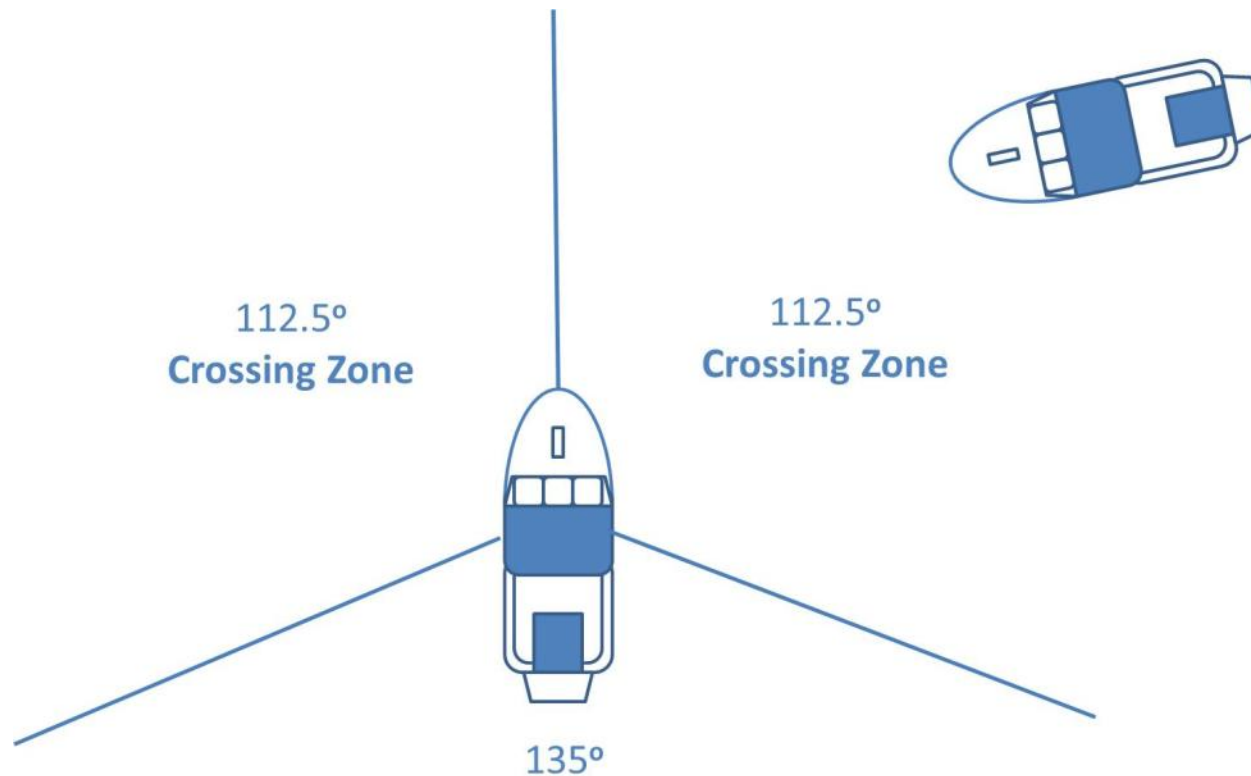
Given the standard running lights of a powerboat, what colors do you see when head on?



What signal would you sound if you wanted to pass starboard to starboard?

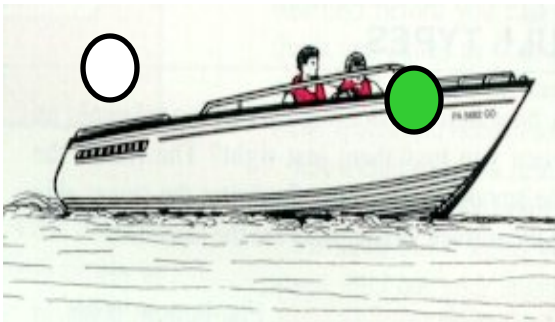
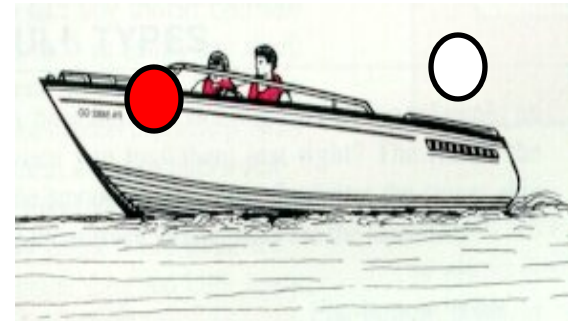
Crossing Situation Defined

Not head on and not overtaking



Crossing Situation Rules

If the vessel is to your right (starboard) side, then you Give Way

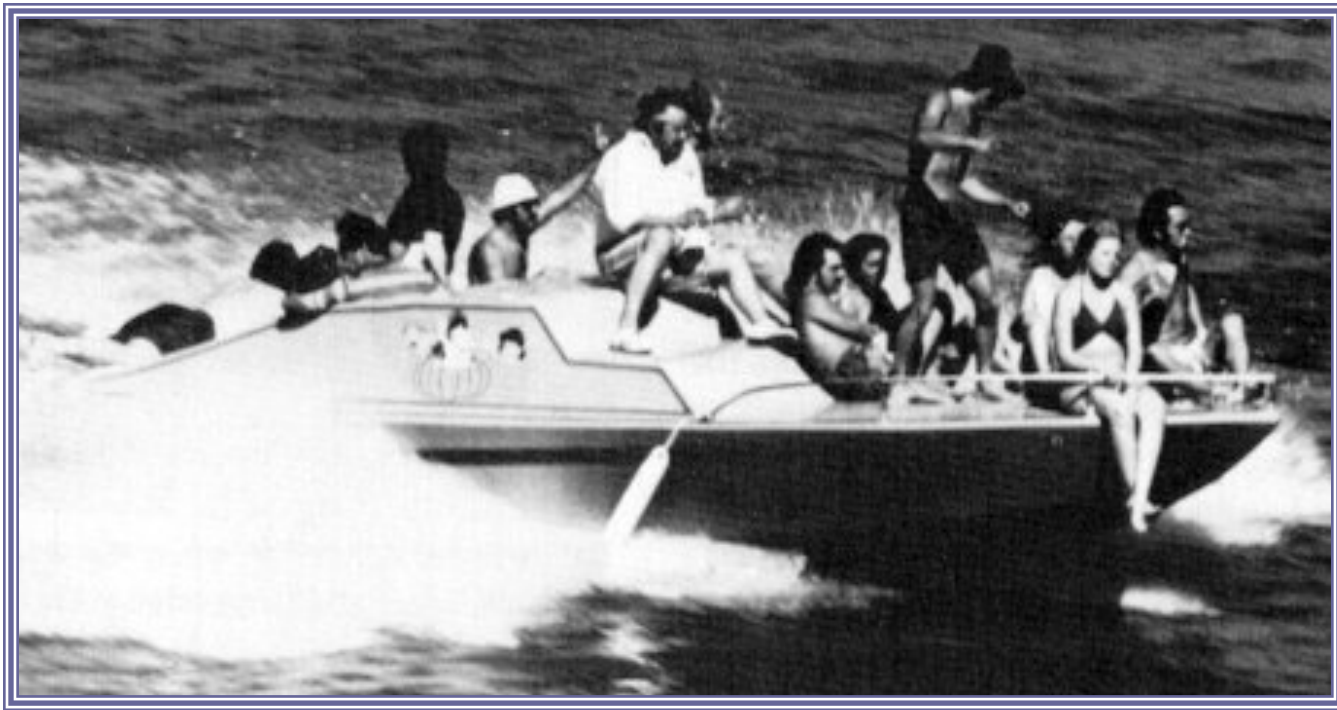


If the vessel is on your left (port) side you Stand On

What lights would you see at night?

Keep In Mind

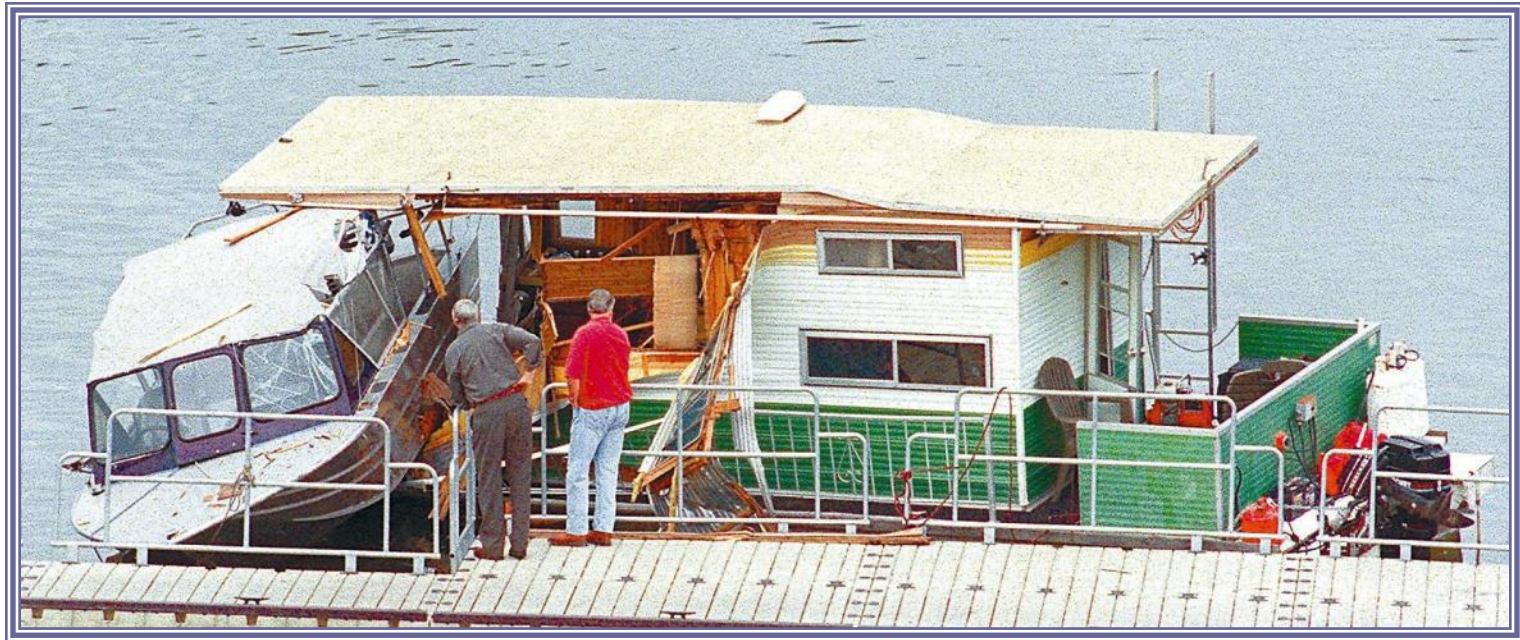
Many boaters don't know the rules of the road



Navigation Rules

Responsibility Rule:

Allows you to make a departure from the Navigation Rules to avoid immediate danger.



Most Common Cause of Boating Accidents

Failure to keep proper lookout



Homeland Security

- Operate at minimum speed within 500 yards of military vessel
- Do not approach closer than 100 yards of military vessels, or other sensitive area

WARNING!

Do not approach within 100 yards of any U.S. naval vessel. If you need to pass within 100 yards of a U.S. naval vessel in order to ensure a safe passage in accordance with the Navigation Rules, you must contact the U.S. naval vessel or the Coast Guard escort vessel on VHF-FM channel 16.



You must operate at minimum speed within 500 yards of any U.S. naval vessel and proceed as directed by the Commanding Officer or the official patrol.

Violations of the Naval Vessel Protection Zone are a felony offense, punishable by up to 6 years in prison and/or up to \$250,000 in fines.



Homeland Security

Notify authorities if you see:

1. Suspicious vendors in waterfront areas.
2. Suspicious persons renting or attempting to procure or "borrow" watercraft.
3. Unknown persons photographing or creating diagrams (e.g. of underside of bridges, facilities near military, cruise-line, or commercial vessels).
4. Suspicious persons conducting unusual activities, such as near bridges or high security areas on or near the water.



Questions?