

# BASIC NAVIGATION RULES

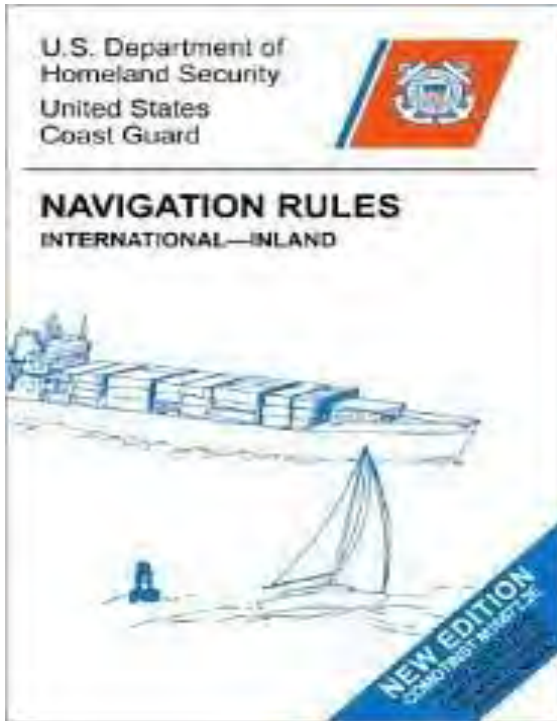
“The Rules of the Road”

# “The Rules of the Road”

## OBJECTIVES:

- Learn the purpose of “Rules”
- Learn Navigational terms
- Learn to interpret navigation lights
- Learn the basic Navigation Rules for crossing, meeting & overtaking situations.
- To stay awake!

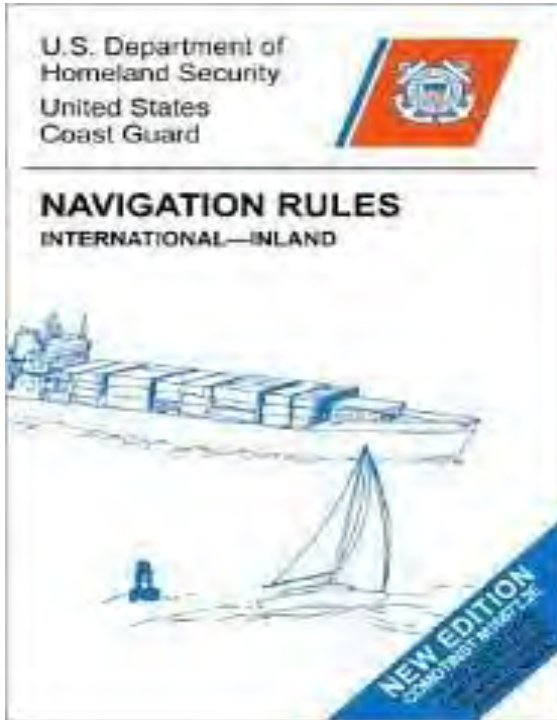
Where do the rules come from?



**“Navigation Rules”**  
**Are published by the**  
**U.S. Department of**  
**Homeland Security**  
**for the United States**  
**Coast Guard**

- *"Never memorize what you can look up in books."*  
Albert Einstein

# What is the purpose of the Rules?



**To protect against loss of life, injury, and property damage as a result of collision.**

**In other words to prevent accidents**

# Most Common Accident



*Collision with another vessel*

# Second most common



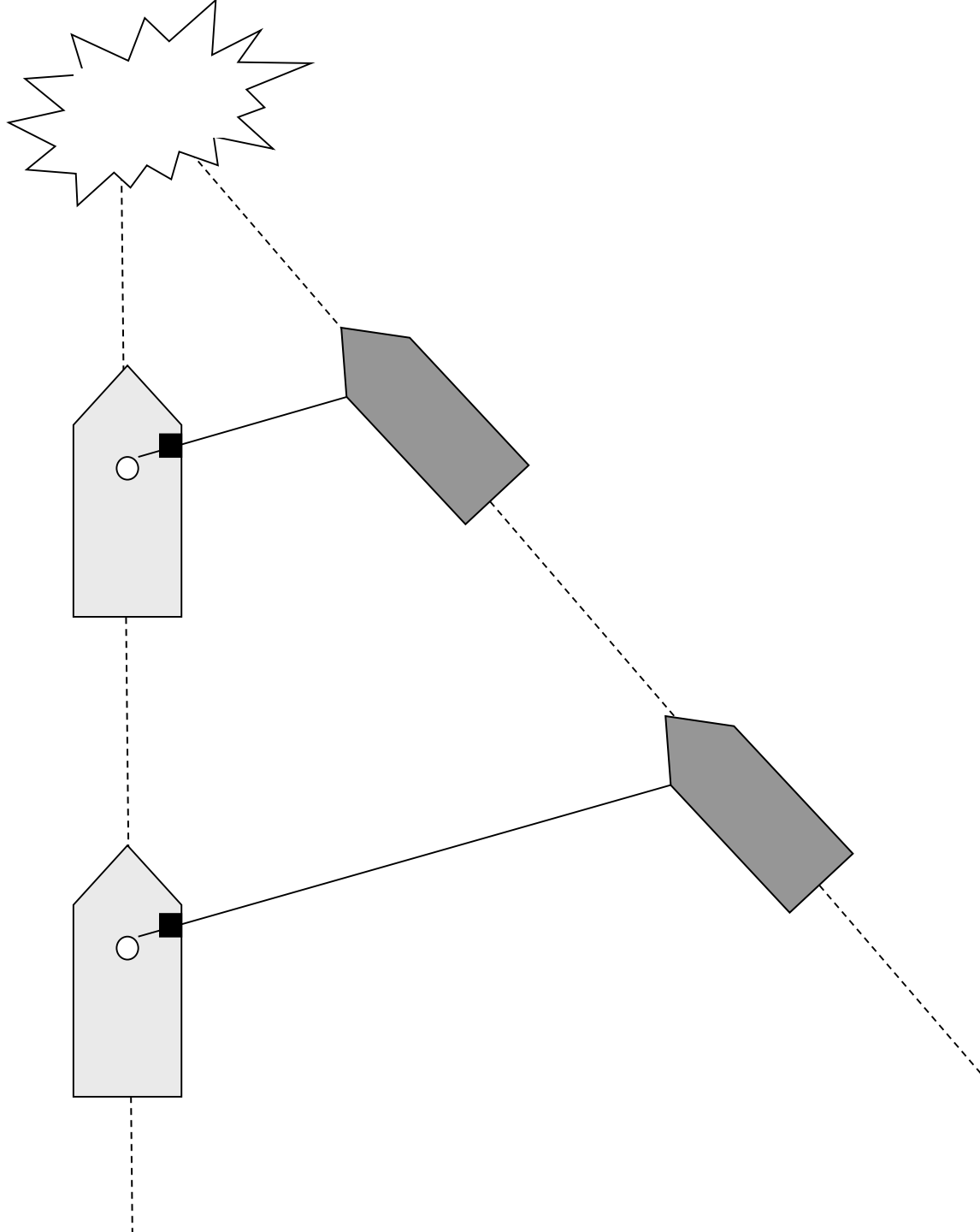
*Collision with a fixed object*

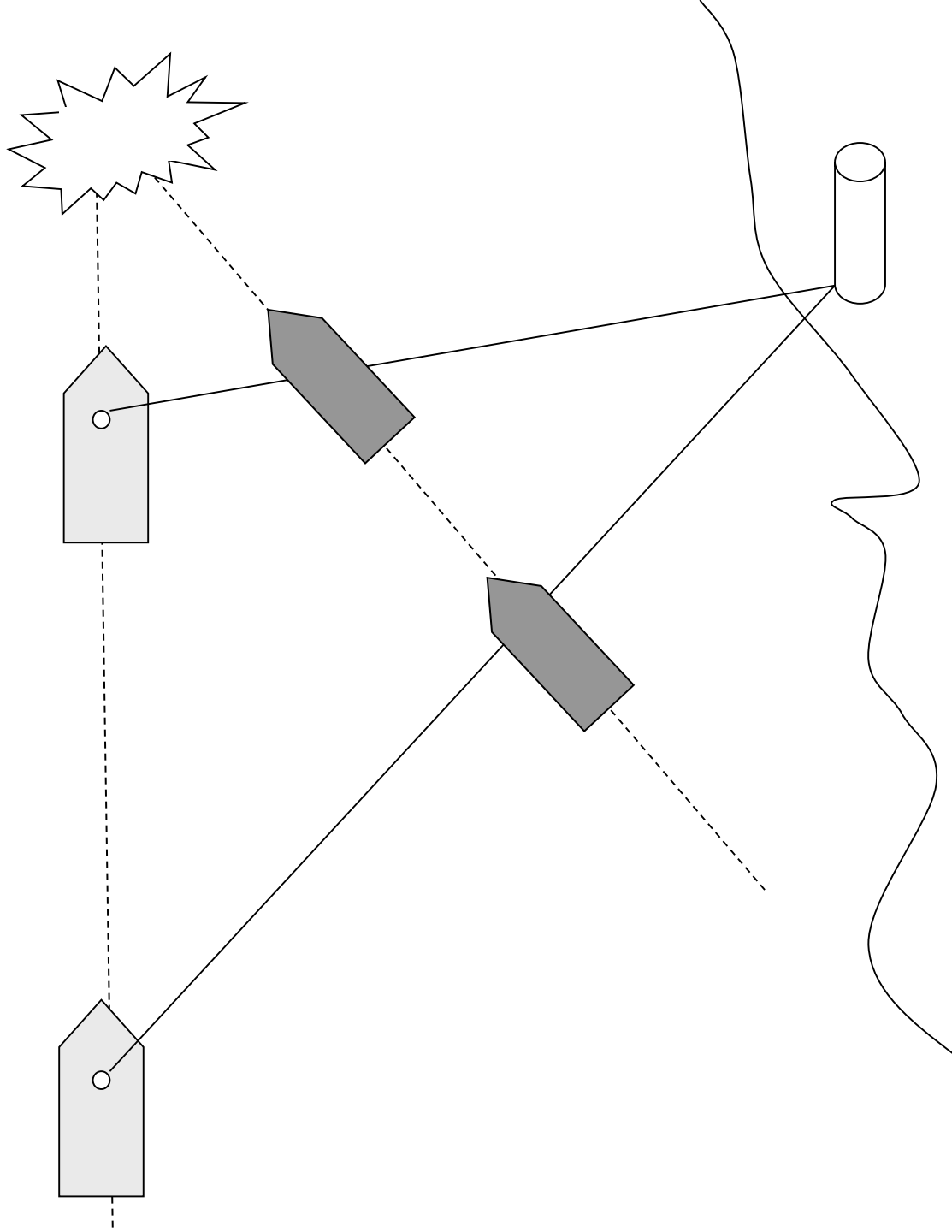
# Most common cause



*Failure to keep proper lookout*







# Accidents

Most collisions could be avoided by:

- Proper use of a “lookout”
- Knowledge of “Rules of the Road”
- Knowledge of proper boat lighting
- Knowledge of “Aids to Navigation”

# Ground Rules for Navigation

Definitions & Responsibility

# Navigation Rules Definitions

- **Underway** - not at anchor, aground or attached to the dock or shore
- **Danger Zone** – an arc of 112.5 degrees measured from dead ahead to just aft of the starboard beam
- **Right-of-way** – the right and duty to maintain course and speed

# Navigation Rules Definitions

- **Stand-On Vessel** - vessel that has right-of-way
- **Give-Way Vessel** – the vessel that must keep clear of the stand-on vessel
- **Visible** (when applied to lights) – visible on a dark, clear night
- **Short Blast** – a blast of approximately one-second duration
- **Prolonged Blast** – a blast of four to six seconds

# **Operator Responsibility**

***Vessel***

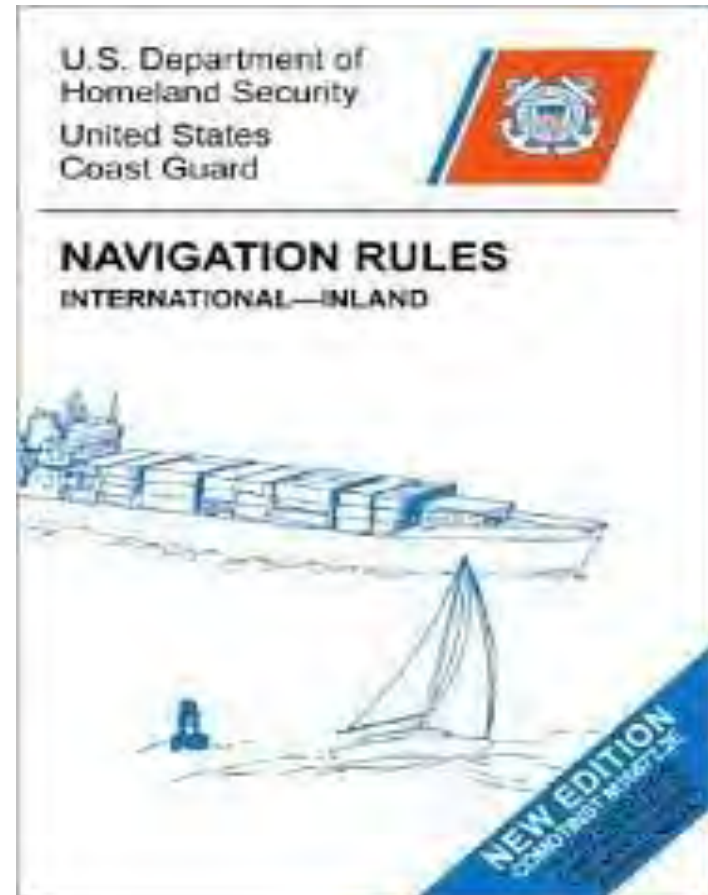
***(Operation, maintenance, Safety, and Wake)***

***All occupants***

***Final Authority***

# Responsibility Rule

**Allows for  
departure  
from the Rules  
of the Road if  
necessary**





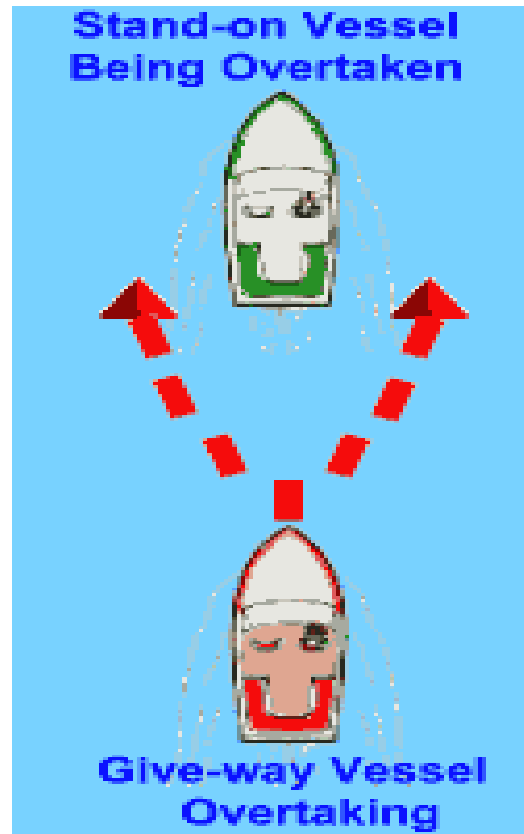
Here lies the body of Michael O'Day,  
He died maintaining the right of way.  
He was right, dead right, as he sailed along.  
Now he's just as dead as if he'd been wrong.

- Overtaking
- Head-On
- Crossing

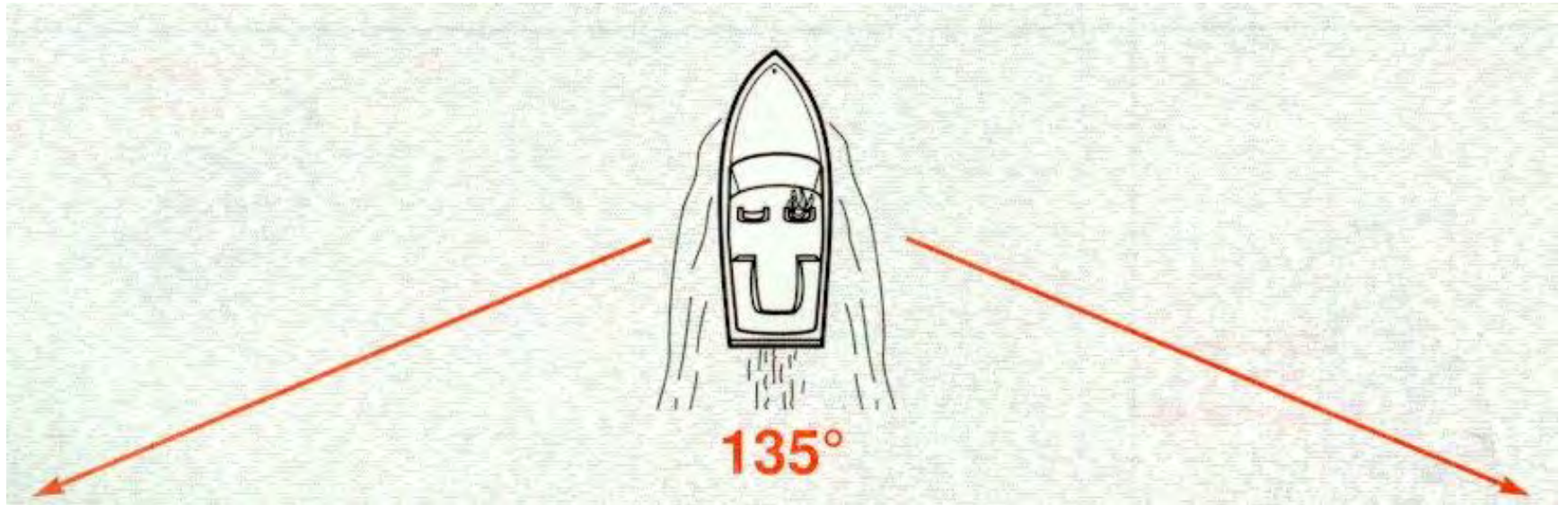
# Rules of the Road

- **Overtaking Rule (Rule 13)**
  - A vessel is being overtaken if you are within the Arc of visibility of its stern light only (135 degrees across the stern)
  - Vessel being overtaken is the stand-on vessel
  - The overtaking, give-way vessel, is required to sound whistle signals to indicate how it proposes to pass the other vessel

# Rules of the Road



# When are you overtaking?



*If you're in this area you are overtaking*

# Remember

*If you start out overtaking, you continue to be the “Give Way” until there’s no risk of collision (even past the 135° mark).*

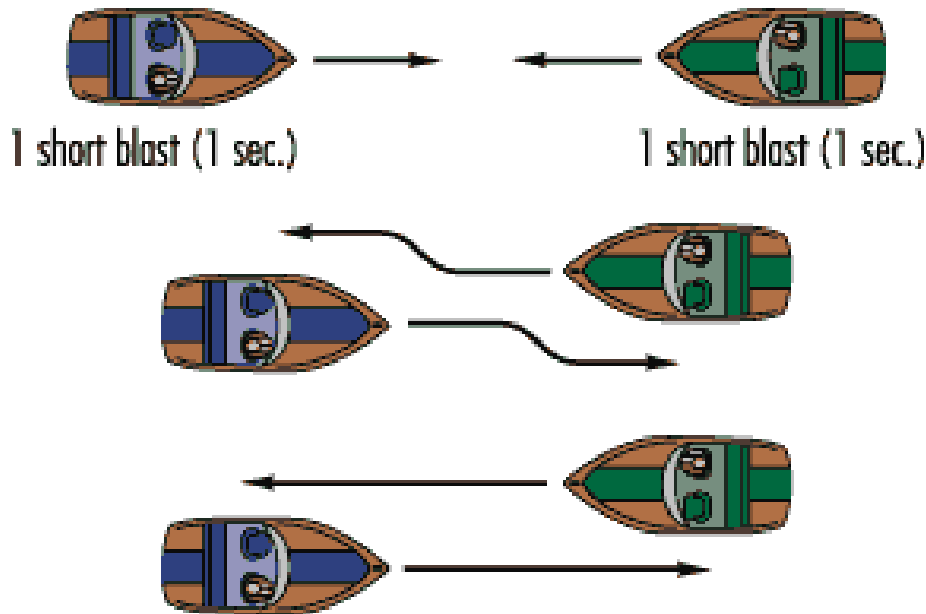
# Rules of the Road

- **Head-on situation (Rule 14)**
  - A meeting situation exists if you are in the arc of visibility of both sidelights and/or its masthead lights are in the line or nearly so
  - Neither vessel has the right-of-way
  - Whistle signals are required, either can initiate
  - Alter course to starboard so that each pass **port to port**
  - May pass starboard to starboard when both agree after exchanging proper signals

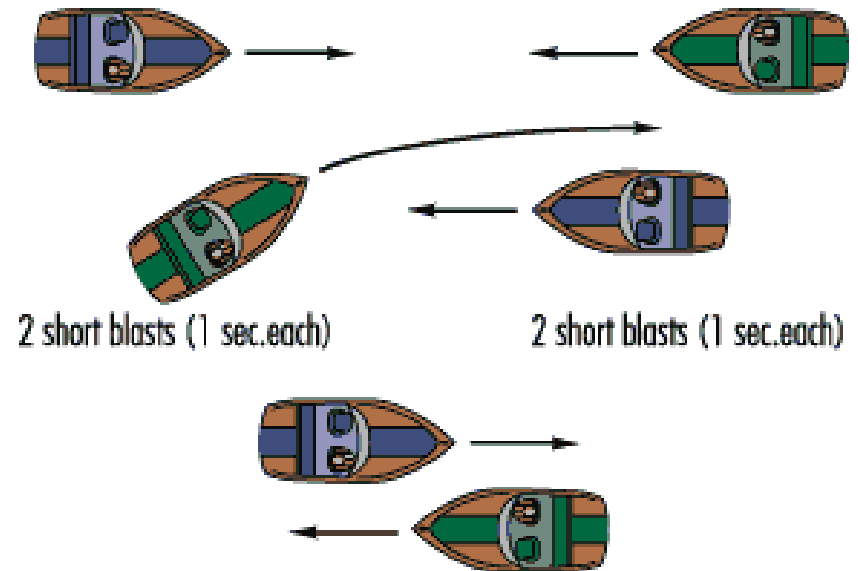
# Rules of the Road

## Head-on situation (Rule 14)

### Meeting Head-On or Nearly So Situations



Vessels generally pass portside to portside. However, vessels may pass starboard to starboard if proper signals are given.



*Rule does not apply if the two vessels will pass clear of each other if each maintains course and speed*

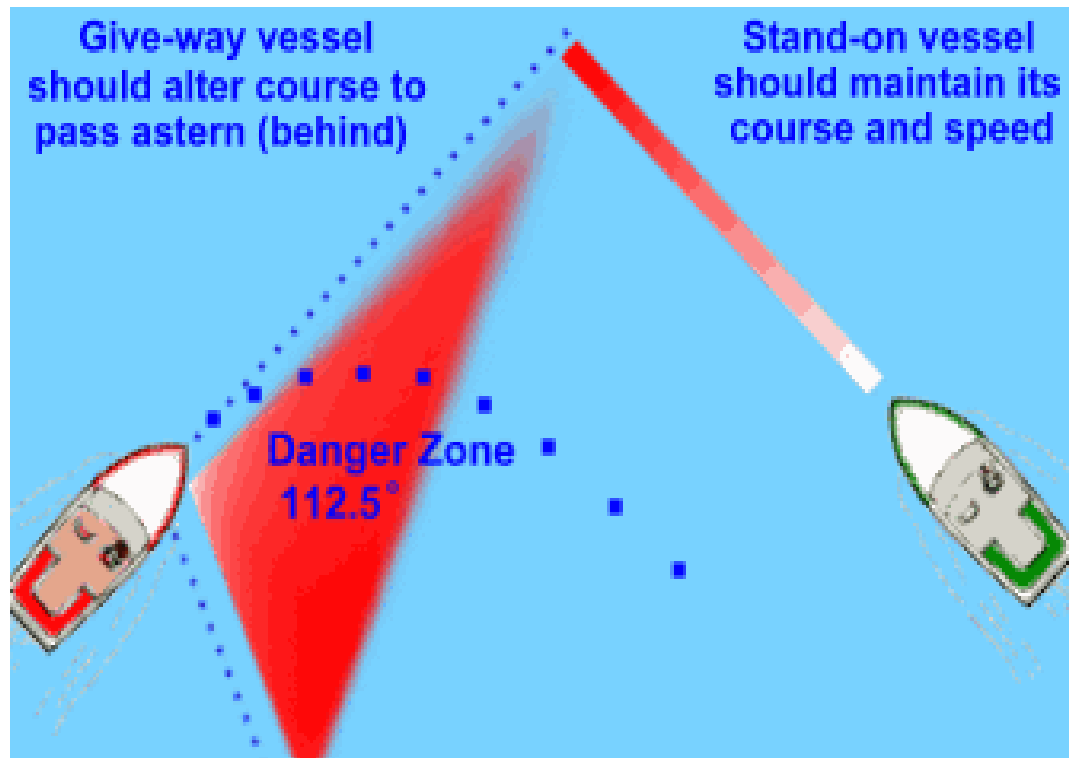


# Rules of the Road

- **Crossing Situation (Rule 15)**
  - A crossing situation exists if you are within the arc of visibility of either sidelight of the other vessel
  - The give-way vessel is the one that “sees red”, has the other vessel on its starboard side
  - The stand-on vessel should initiate whistle signals to propose action

# Rules of the Road

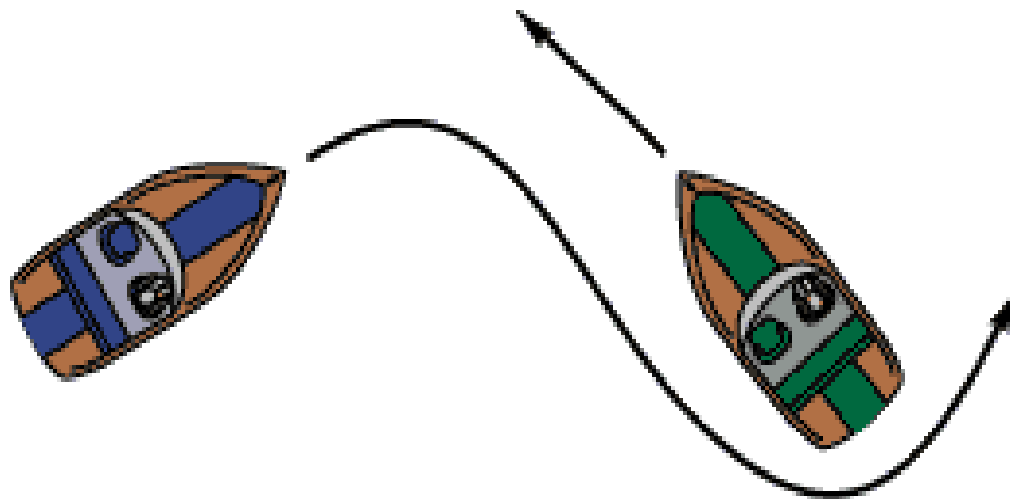
## Crossing Situation (Rule 15)



# Rules of the Road

## Crossing Situation (Rule 15)

### Crossing Situations



**Give-way Vessel**

... give way

1 short blast (1 sec.)

**Stand-on Vessel**

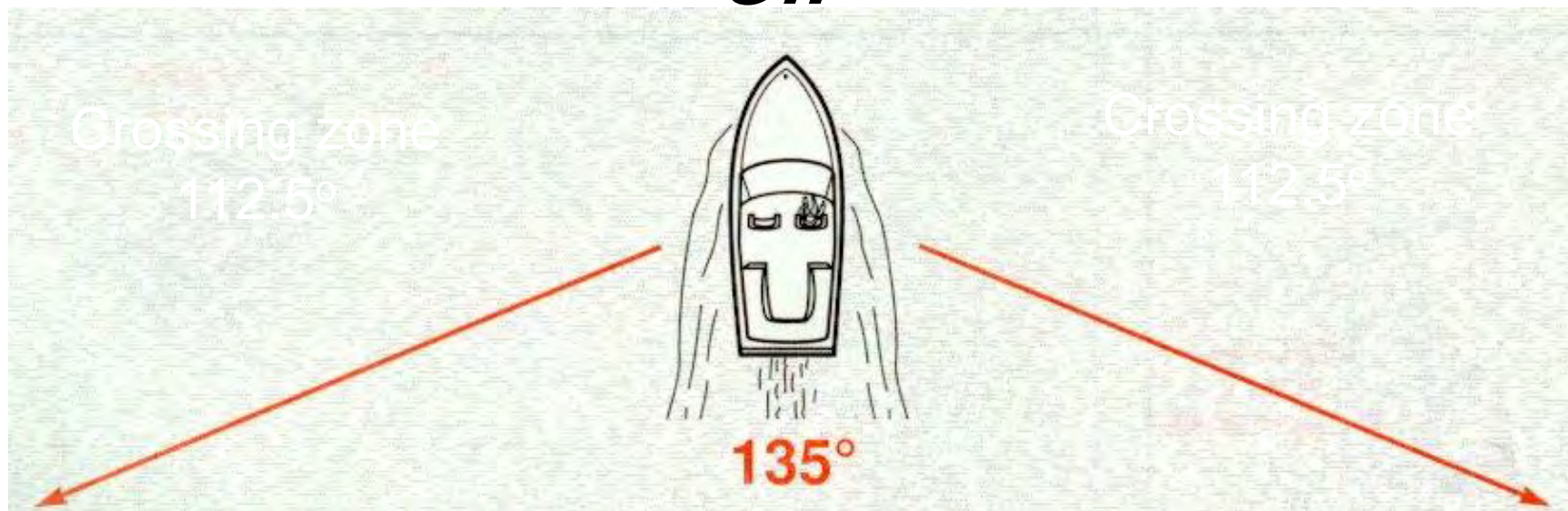
... hold course and speed

1 short blast (1 sec.)



# Crossing Situation

*If not  
Head  
On*



# Equal on Hierarchy and Crossing



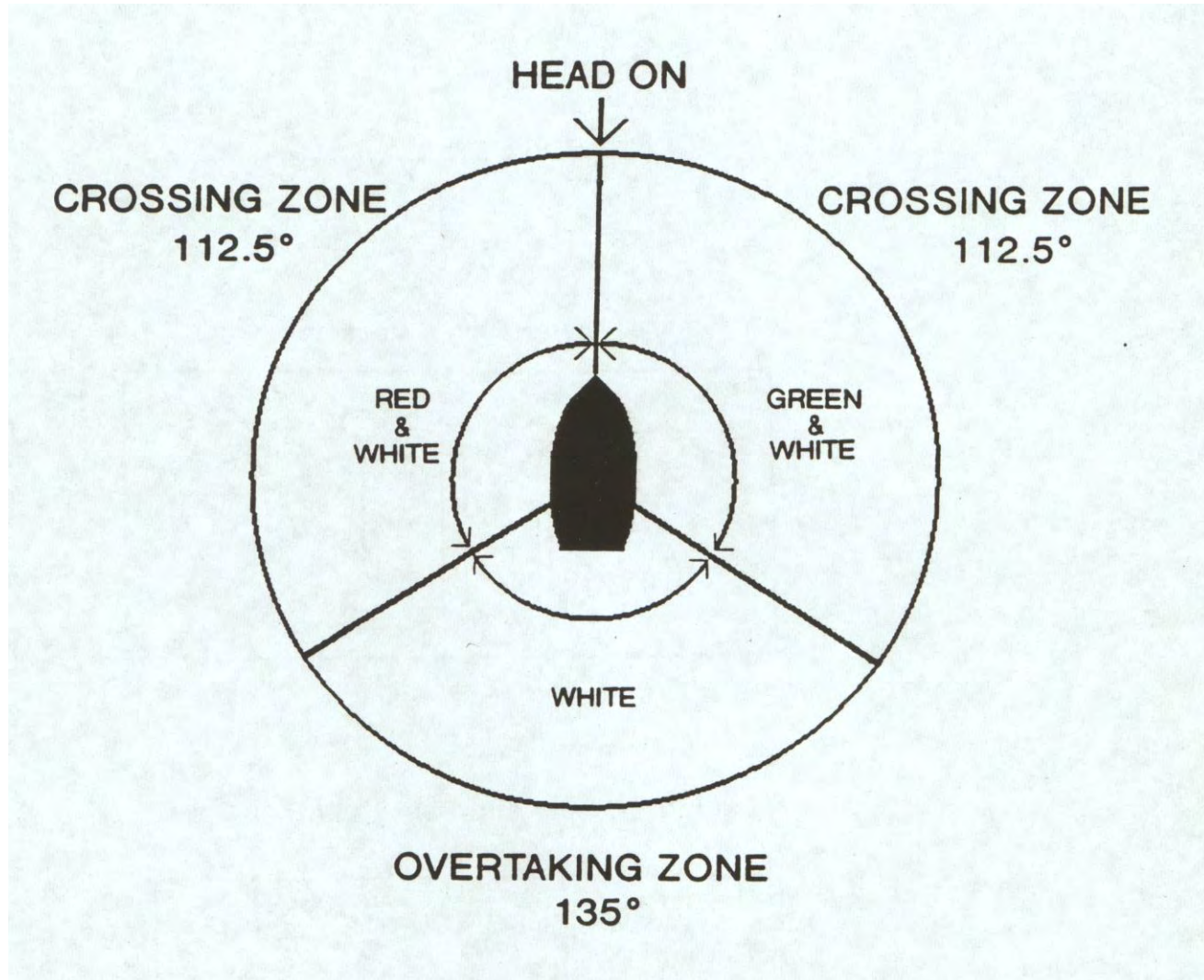
*If you see this...*

# Equal and Crossing



*If you see this.....*

# Remember -



# Rules of the Road

## **“Vessel Hierarchy”**



# Vessel not under Command















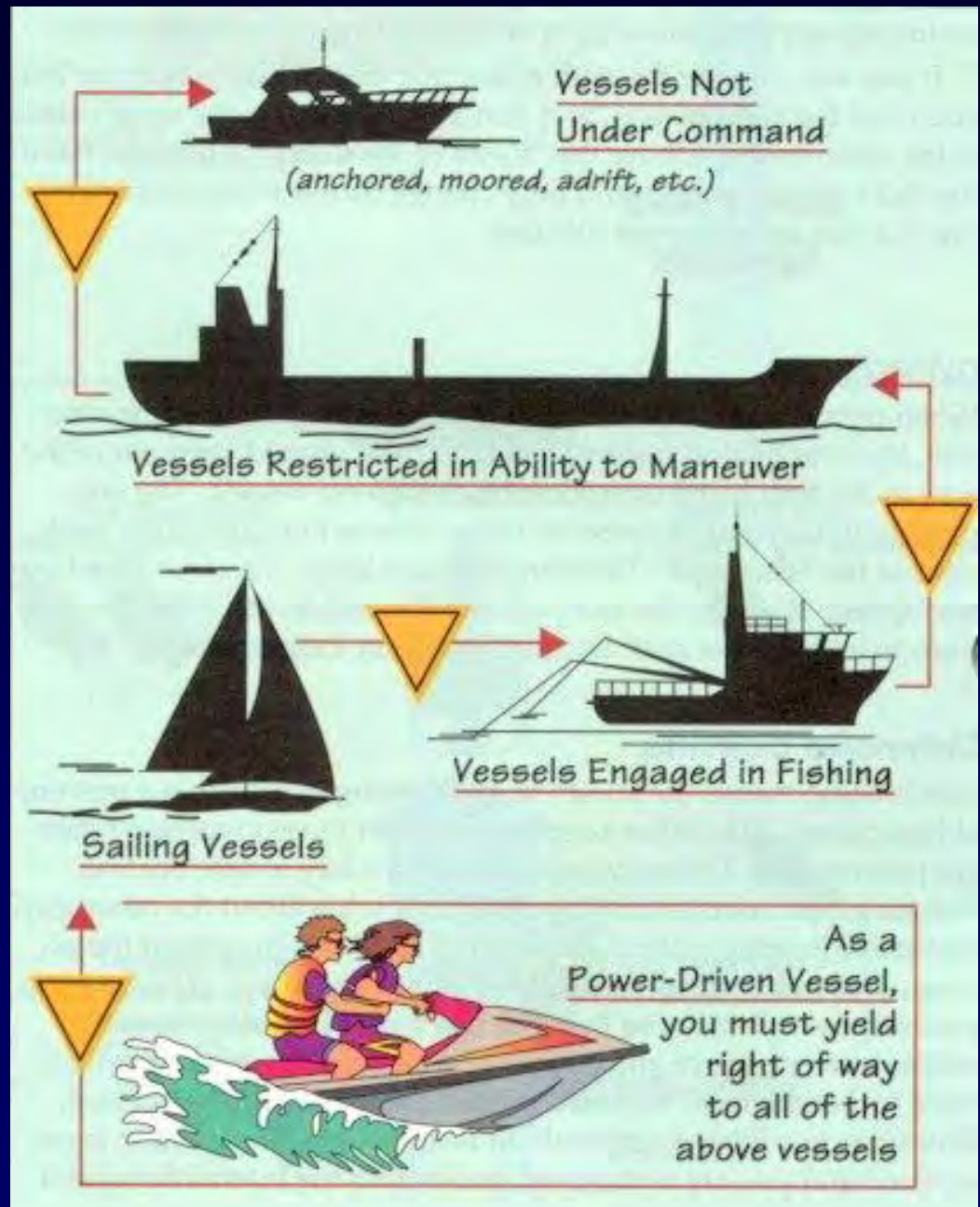
# Rules of the Road

## **“Vessel Hierarchy”** based on maneuverability and draft

- **Vessel not under command** - unable to maneuver
- **Vessel restricted in ability to maneuver** – due to nature of work, etc.
- **Vessel engaged in fishing** – gear that restricts ability to maneuver (trawlers)
- **Sailing vessel** – vessel under sail, not propelled by machinery
- **Power-driven vessel** – vessel propelled by machinery
- **Seaplane**

# Vessel Hierarchy

*Maneuverability based on size, draft, and/or activity*



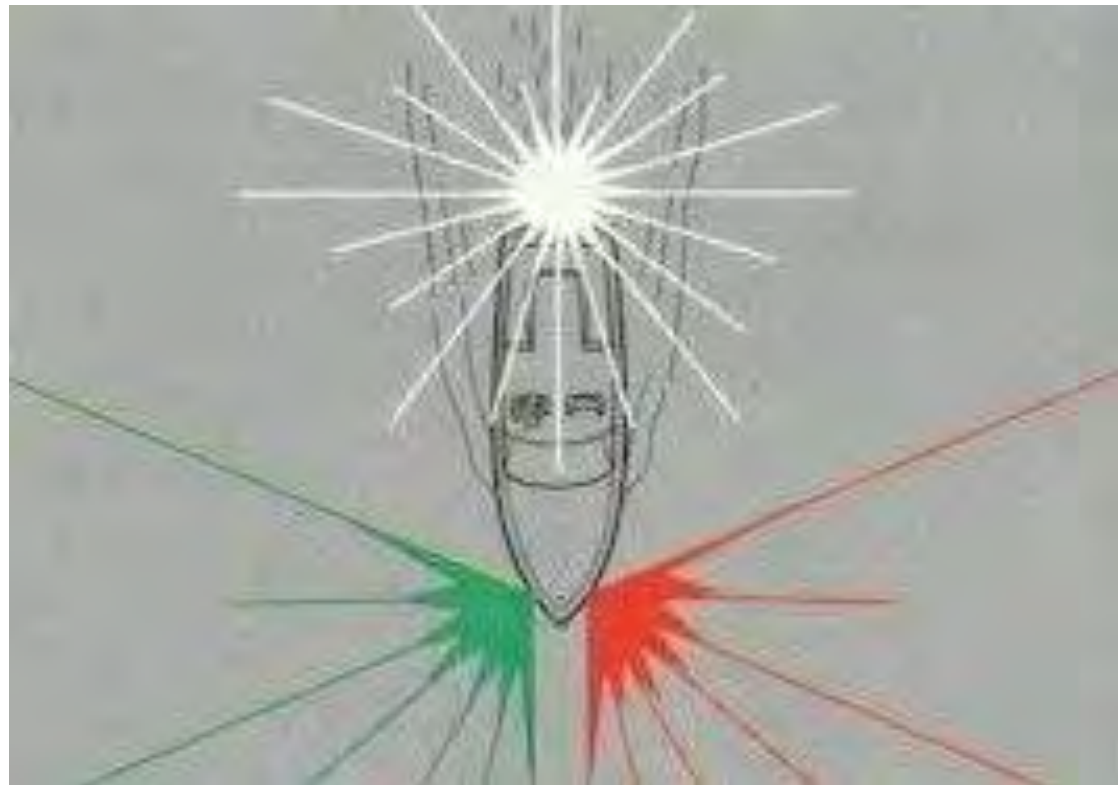


# Rules of the Road

- **Maneuvering and Warning Signals (Rule 34)**
  - **1 short blast** – I intend to leave you on my port side
  - **Two short blasts** – I intend to leave you on my starboard side
  - **Three short blasts** – I am operating astern propulsion
  - **Five short blasts** – Danger, I don't understand your signal, or am in doubt that sufficient action is being taken
  - **One prolonged blast** – obstructed visual signal, used for blind bends or leaving a dock/berth
  - **One prolonged blast every two minutes** – restricted visibility signal, eg. fog

# Rules of the Road

## Restricted Visibility – Night-time Navigation



# Rules of the Road

## Restricted Visibility – Night-time Navigation

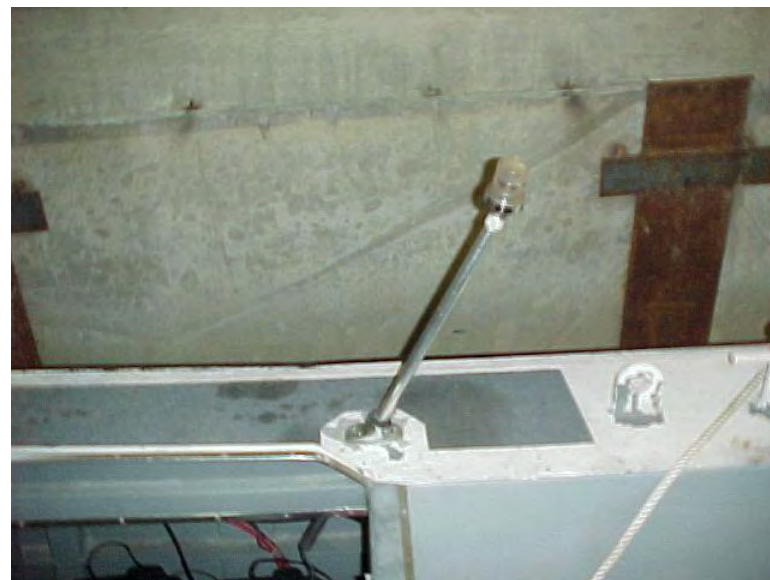
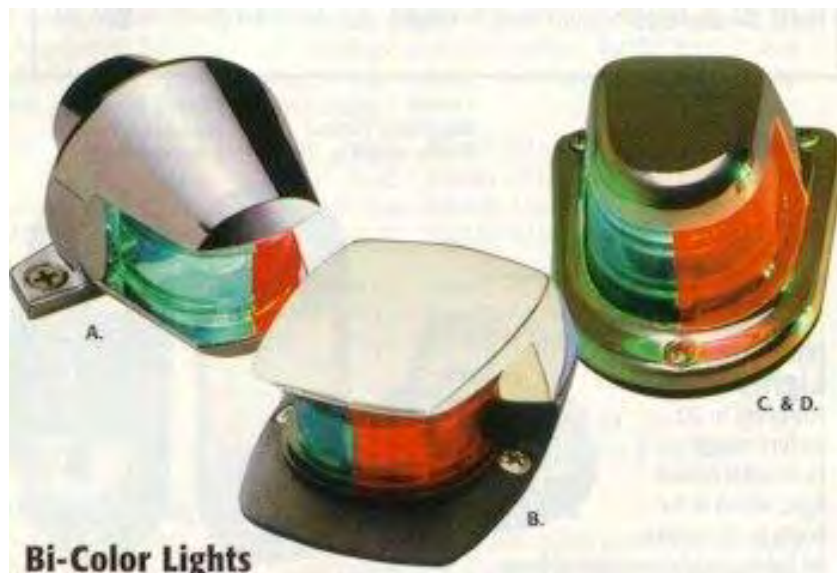
**When you see both red and green colors of the bow light, YOU ARE IN A COLLISION HEAD-ON COURSE!**



# Navigation Lights

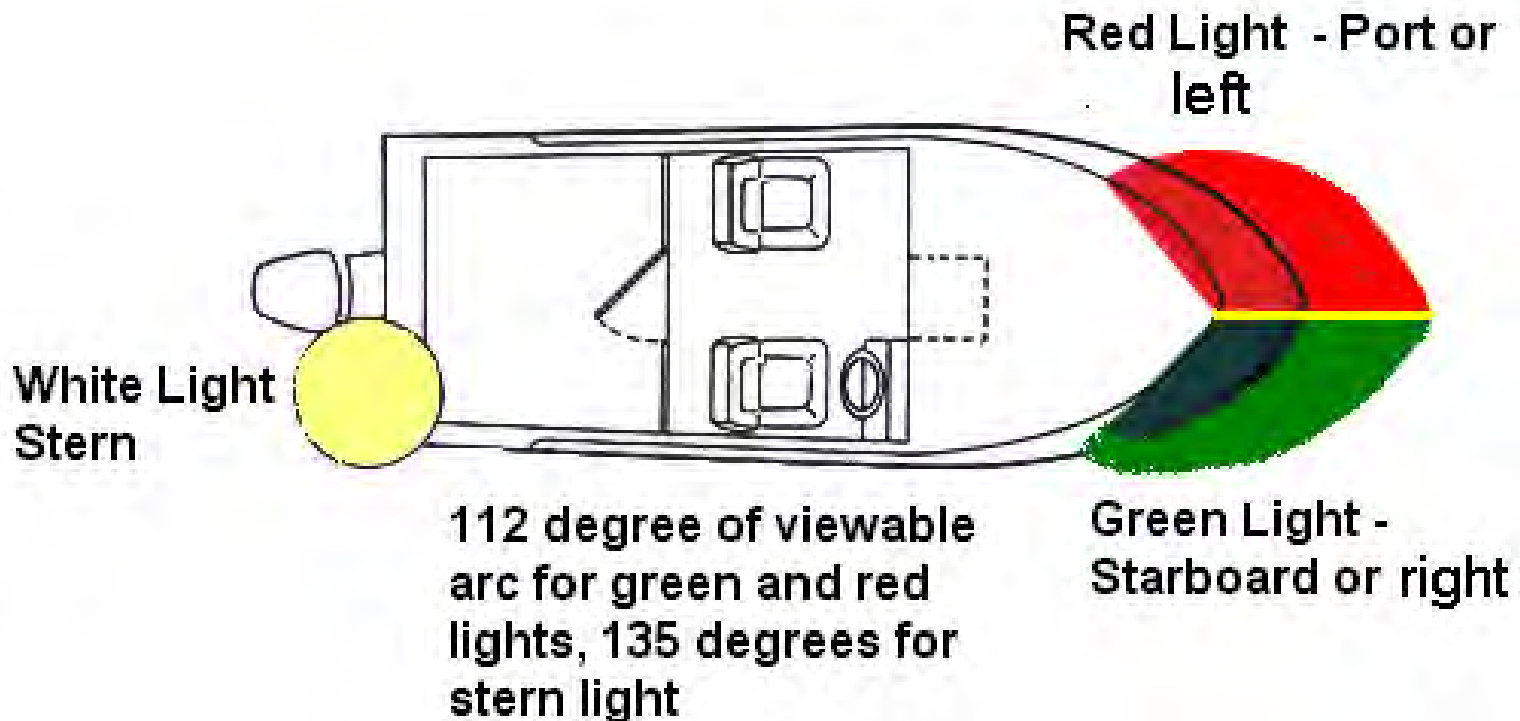
Specific lighting configurations are required for vessels:

- **operating between sunset and sunrise**
- **in times of restricted visibility**



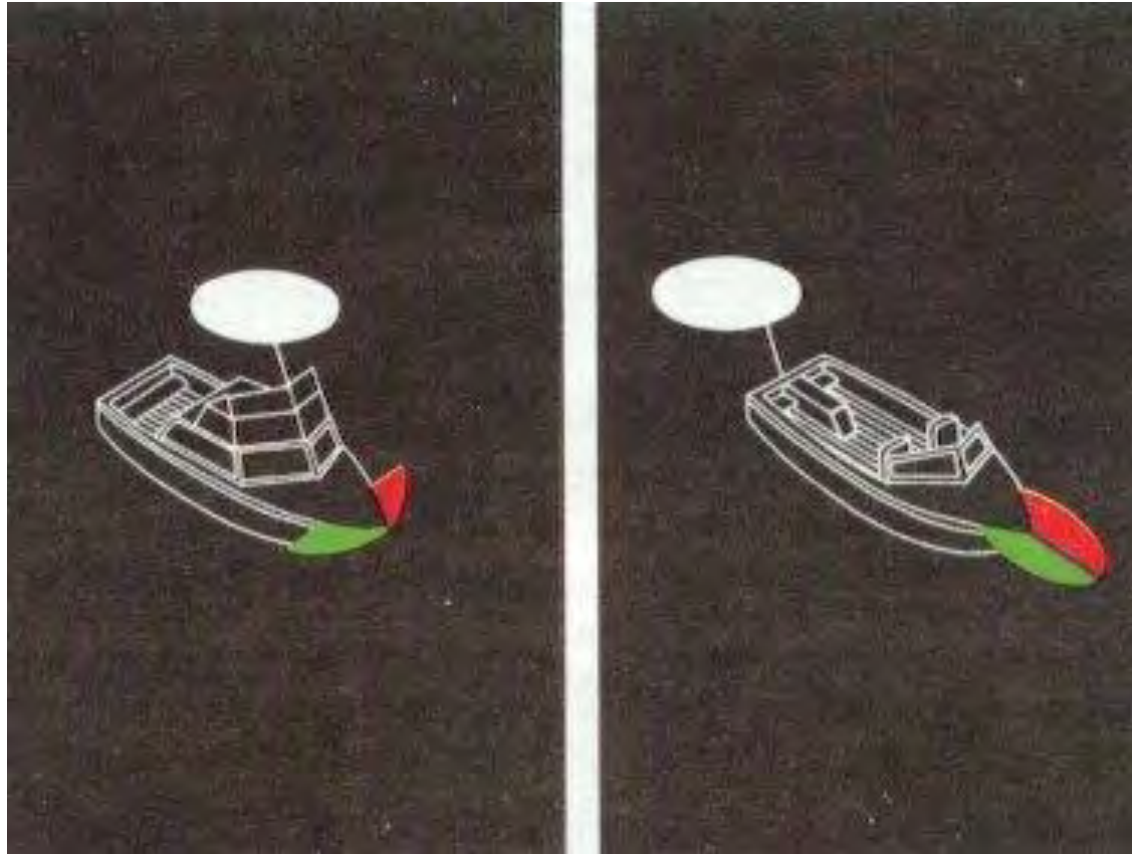
# Navigation Lights

- White 360 degree light required when anchored
- Red and Green lights (112 degree arc each) required when underway between sunset and sunrise or in restricted visibility



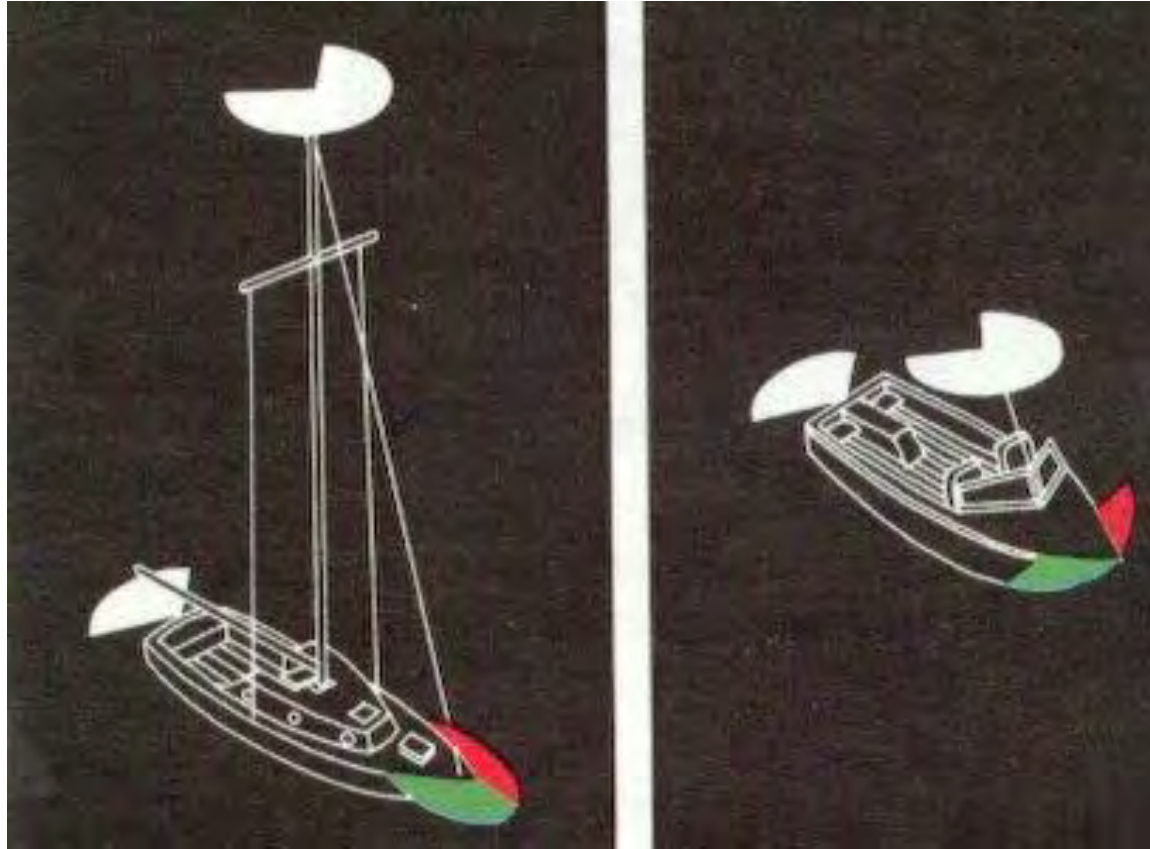
# Configurations

## Class A-1 Under Power



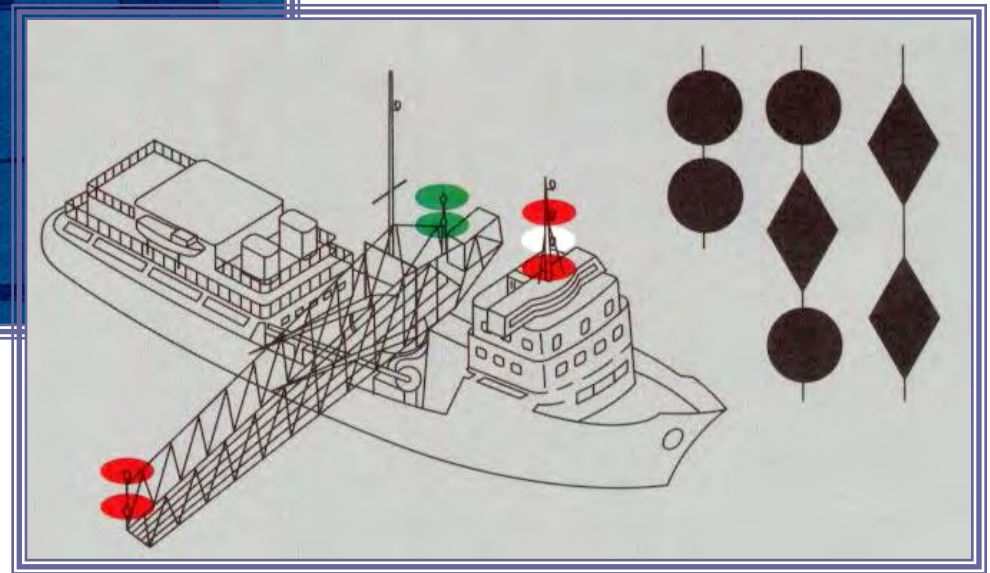
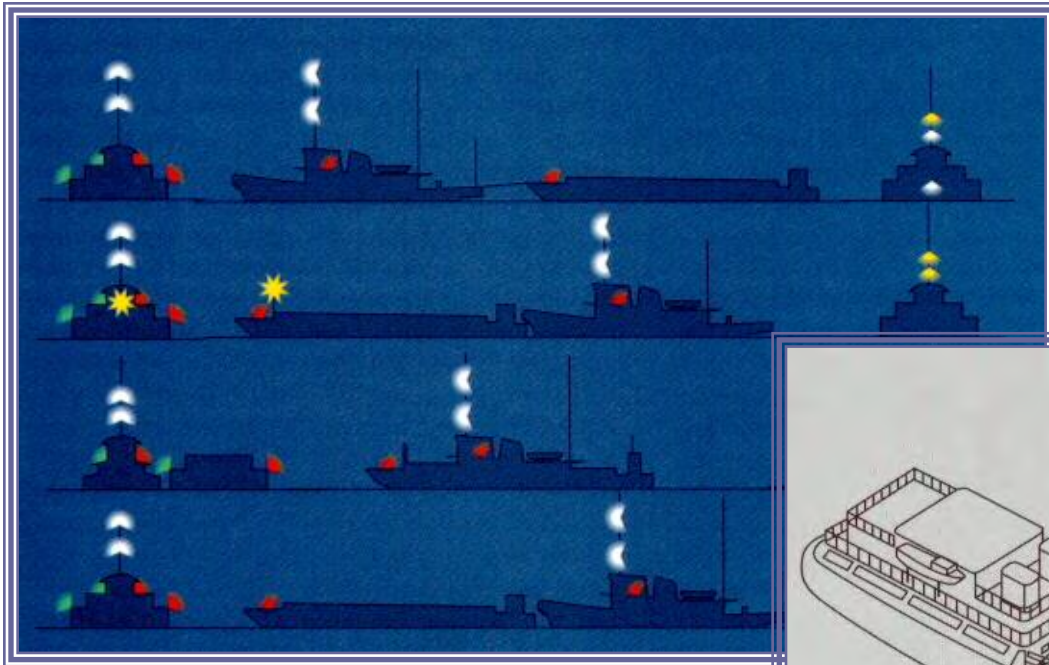
# Configurations

## Class A-1 Under Power





# Other lights & Day shapes





# Navigation Lights

- Navigation lights should be checked prior to departing the dock
- Always carry spare bulbs