



Lights and Shapes

Here are the “Basics” for Lights & Shapes. Learn the Exceptions later.

In general, you expect vessels to show lights from sunset to sunrise and in conditions for restricted visibility. They show one set of lights underway and a different set of lights at anchor or aground.

Underway, all vessels show sidelights and sternlights. Power boats show masthead lights but sailboats will NOT show masthead lights. (A “sailboat” running its engine is a power boat.)

NUC **Lights:** Red over Red **Day Shape:** Ball over Ball (*Captain is Dead*)

RAM **Lights:** Red over White over Red **Day Shape:** Ball over Diamond over Ball

Constrained by Draft 3 Red Lights in vertical line **Day shape:** Can (**International**)
(*weird case: Lights and Balls don’t match up: 3 vertical balls means aground.*)

Fishing, Not Trawling

Lights: Red over White **Day Shape:** Two cones, points together

Fishing, Trawling

Lights: Green over White **Day Shape:** Two cones, points together

Pilot Boats

Lights: Green over White **Day Shape:** no special shape for pilot boat

Tow Boats

This required a special session because there are so many cases. Remember, boats can tow astern, tow alongside or push ahead, with or without a rigid connection.

Sailboats

Lights: no masthead lights **Day Shape:** cone pointed down if engine on.

All vessels at Anchor

Lights: all round white light **Day Shape:** One black ball

All vessels Aground

Lights: Red over Red **Day Shape:** Three black balls, vertical
(*weird case: Lights and Balls don’t match up: 3 vertical balls means aground.*)

REMBEMBER: There are a number on “Exceptions” which we will learn later. These are mostly for the relatively rare cases such as NUC, RAM or Fishing.

Suggestion: Study this first page first. Don’t even go on for at least a few days. Spread your studying out – it is supposed to be fun. Otherwise, it probably won’t work.

Lights and Shapes – Details & Exceptions

**Be sure you know the “Basics” before studying this. (Essentially what Power Boats carry.)
In fact, I suggest you go on through the course and don’t worry about this till later.
When you come back to review what you learned, you can use this and skip the 1st page.**

NUC **Lights:** Red over Red **Day Shape:** Ball over Ball (*Captain is Dead*)
(*Careful: Aground is Red over Red but Day Shape is 3 Balls vertically.*)
(*Careful: Ball over Ball marks obstruction for a dredge which is RAM.*)
Never shows Masthead Lights Side Lights & Stern Lights **only if making way.**
Shows basic anchor lights and shapes at anchor

RAM **Lights:** Red over White over Red **Day Shape:** Ball over Diamond over Ball
Masthead light or lights Side Lights & Stern Lights **only if making way.**
If dredging, show in addition: (*Diamonds are a Girl’s Best Friend*)
 Green over Green on side to pass and Red over Red on side of obstruction
 Diamond over Diamond on side to pass and Ball over Ball on side of obstruction
Careful: Diving is Red over White Lights but Blue/White (Alpha) flag for day shape.
Dredges show these lights and shapes when at anchor (as well as anchor light)
All other RAM show basic lights and shapes at anchor.

Constrained by Draft 3 Red Lights in vertical line **Day shape:** Can (**International**)
(*weird case: Lights and Balls don’t match up: 3 vertical balls means aground.*)

Fishing, Not Trawling

Lights: Red over White **Day Shape:** Two cones, points together
(For gear over 150 meters, white light or cone, point upward, toward gear)
Never shows Masthead Lights Side Lights & Stern Lights **only if making way.**
Shows these lights and shapes when at anchor (as well as anchor light)

Fishing, Trawling

Lights: Green over White **Day Shape:** Two cones, points together
Shows Masthead light or lights, Side Lights & Stern Lights **only if making way.**
Shows these lights and shapes when at anchor (as well as anchor light)

Pilot Boats

Lights: Green over White **Day Shape:** no special shape for pilot boat
Follows Basic rules for power boats otherwise

Tow Boats

This required a special session because there are so many cases. Remember, boats can tow astern, tow alongside or push ahead, with or without a rigid connection.

Suggestions: (Know the Basics, of course).

Notice which vessels never show masthead lights.

Notice which vessels make a distinction between underway, making way and not making way.

Notice which vessels don’t change lighting or shapes when at anchor.

Then, just assume that anyone else follows the basic rules.

You will seldom, if ever, go wrong with this approach.