Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972

Prof. Manuel Ventura

MSc in Marine Engineering and Naval Architecture

Application

• All ships in the sea and in all the waterway with connection to the sea that are practicable by marine navigation

• Entry into force on the 15th July 1977, replacing the Rules from 1960.
COLREG

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Some Definitions

**Vessel** - includes every description of water craft, including non-displacement craft, WIG craft and seaplanes, used or capable of being used as a means of transportation on water.

**Power-driven Vessel** - means any vessel propelled by machinery.

**Sailing Vessel** - means any vessel under sail provided that propelling machinery, if fitted, is not being used.

**Vessel engaged in Fishing** - means any vessel fishing with nets, lines, trawls or other fishing apparatus which restrict maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability.
Part C - Lights and Shapes

Application

- The Rules concerning **lights** shall be complied with **from sunset to sunrise**, and during such times no other lights shall be exhibited.
- The Rules concerning **shapes** shall be complied with by **day**.

Lights and Shapes - Definitions

**Masthead Light** - means a white light placed over the fore and aft centreline of the vessel showing an unbroken light over an arc of the horizon of 225 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the vessel.
Sidelights - means a green light on the starboard side and a red light on the port side each showing an unbroken light over an arc of the horizon of 112.5 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on its respective side.

- In a vessel with length < 20 meters the sidelights may be combined in one lantern carried on the fore and aft centerline of the vessel.

Sternlight - means a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed as to show the light 67.5 degrees from right aft on each side of the vessel.

Towing light - means a yellow light having the same characteristics as the "sternlight"
Part C - Lights and Shapes

Ships Power-driven Underway

- Shall exhibit:
  - 1 masthead light, forward
  - 1 masthead light abaft of and higher than the forward one (ships with \( L > 50 \) m)
  - Side lights
  - 1 stern light

Vertical Location of the Lights

Ships Power-Driven with \( L > 20 \) m

- The forward masthead light, at a height above the hull \( \geq 6 \) m, and if the \( B > 6 \) m, then at a height above the hull not less than such breadth, however need not be placed at height \( > 12 \) m.
- When 2 masthead lights are carried the after one shall be at least 4.5 m vertically higher than the forward one
- The sidelights shall be placed at a height above the hull not greater than \( \frac{3}{4} \) of that of the forward masthead light.
Horizontal Location of the Lights

*Ships Power-Driven with \( L > 20 \text{ m} \)*

- If there are 2 masthead lights, the distance between them \( C \geq \frac{L}{2}, \) (Max. 100 m)
- The sidelights shall not be placed in front of the forward masthead lights and they shall be placed at or near the side of the vessel

Location of the Lights

\[
X_{\text{min}} \geq \frac{C \cdot H_f}{(A + 1000)}
\]

\[
F = D + 4.5
\]

\[
E \leq 0.75b
\]

\[
D \geq \text{MAX}(6 \text{ m}, B) \quad \text{(Max. 12 m)}
\]

\[
A \leq 0.25L
\]

\[
C \geq 0.5L \quad \text{(Max. 100 m)}
\]
**Shapes Characteristics**

**Shapes**
- Shall be black and have the following dimensions:

  - **Spherical Shape**
    - Diameter: 1000
  - **Conical Shape**
    - Base Diameter: 1200
  - **Cylindrical Shape**
    - Height: 1200
  - **Biconical Shape**
    - Base Diameter: 1200

**Part D - Sound and Light Appliances**

**Equipment for Sound Signals**
- Ships with \( L \geq 12 \) meters shall have:
  - A whistle (apito), with range \( \geq 1 \) nautical mile
  - A bell (sino), with a diameter \( \geq 300 \) mm
- Ships with \( L \geq 100 \) meters shall also have:
  - A gong
• The **navigation lights** (masthead lights fwd and aft, sidelights and stern light) shall be **duplicated** or provided with 2 lamps

• Concerning the location of the side lights, “close to the side shell” is interpreted as being at a

  dist. ≤ \( \text{Max}(0.10B, 2 \text{ m}) \)

  inside the side shell