



Rules of the Road Part 1



History of the Rules



- Regulations for Preventing Collisions at Sea (COLREGS)
 - Refers to International Rules ONLY
 - Full name: Convention on the international Regulations for Preventing Collisions at Sea, 1972
 - Rules in this form were developed by the IMO, put in effective July 15, 1977 and amended in 1981 and 1989
- Inland Rules
 - Inland Navigation Rules Act, 1980
 - Combined and standardized old sets of Rules
 - Inland Rules are part of the Code of Federal Regulations: this means they are LAW



The Nature of Risk at Sea



- In 1979, MIT analyzed collision data with the following results
 - Crossing 9%, Overtaking 9%, Doubtful 10%, Meeting/Head-On 72%
 - 1/3 of collisions occur at night or early morning (4-8 watch)
 - Visibility was the number one factor influencing collision



Construction of the Book



- Five Parts
 - Part A: General
 - Part B: Steering and Sailing Rules
 - Three Subparts
 - Part C: Lights and Shapes
 - Part D: Sound and Light Signals
 - Part E: Exemptions (Not testable)
- Five Annexes



Construction of the Book



- Other information
 - Interpretive Rules
 - Lines of Demarcation (where else can they be found?)
 - Penalty Provisions (Inland)
 - Alternative Compliance
 - Waters Specified by the Secretary
 - Vessel BTB R/T Regulations
 - Corrections
- “...there is simply no substitute for studying and reading the rules of the road directly from the Coast Guard text”
 - ADM James Stavridis



Part A General



Rule 1 Application



International

- Applies to ALL vessels upon the high seas
- Rules do not interfere with national sovereignty
 - Operation of special rules
 - Must comply as closely as possible with COLREGS
 - Traffic Separation Schemes
 - Governments approve “closest possible compliance”

Inland

- Applies to all vessels upon the inland waters of US
 - Constitute “special rules” as referred to in COLREGS
 - These must not interfere with special rules made by SECNAV
 - Traffic Separation Schemes may be established
 - “The Secretary” approves all certificates of alternative compliance



Rule 1 Application



Special Navy Signals (Title 32 – National Defense)

- Submarines
- Man Overboard
- Yardarm signaling lights
- A/C Warning
- UNREP contour
- Minesweeping station keeping
- Special operations
- Convoy
- Wake illumination
- Flight ops
- Amphibious ops



Rule 2 Responsibility



- “Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seaman”
- The General Prudential Rule
 - Forehandedness and prudence
 - The mariner is responsible not only for complying with the Rules but also for avoiding a collision.



Rule 3 Definitions



- Basics
 - Sailing vessel
 - Power-driven vessel (includes non-displacement)
 - Vessel
 - Underway
 - In sight of one another
 - Restricted Visibility: normal range of visibility for a given height of eye is reduced





W.I.G.

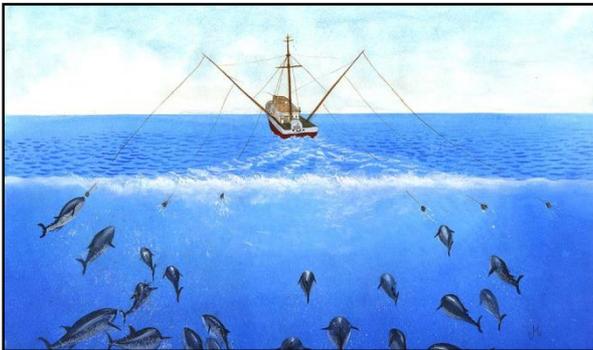
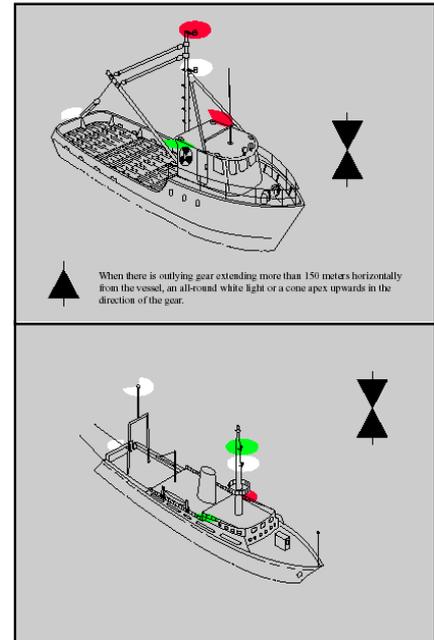




Rule 3 Definitions



- Vessel engaged in fishing
 - Using “nets, lines, trawls or other fishing apparatus which restrict maneuverability”
 - Be careful with “restricts maneuverability” because it is NOT “restricted in ability to maneuver”
 - Does not include a vessel engaged in trolling



Trolling



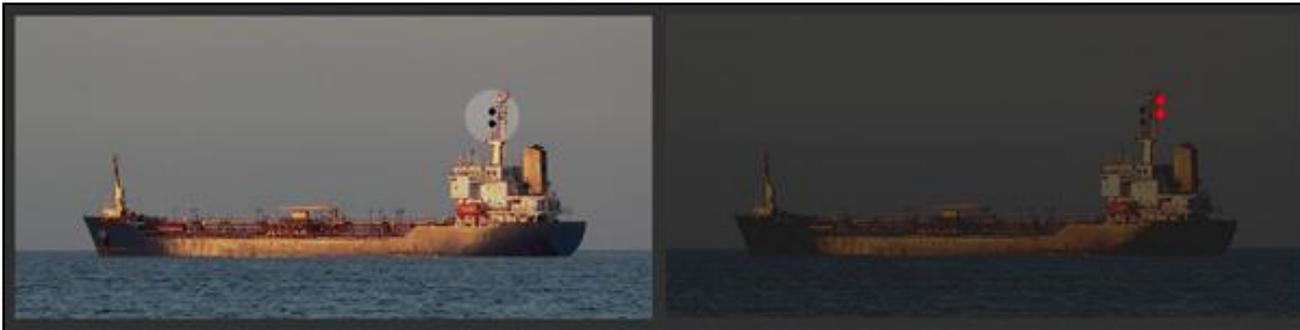
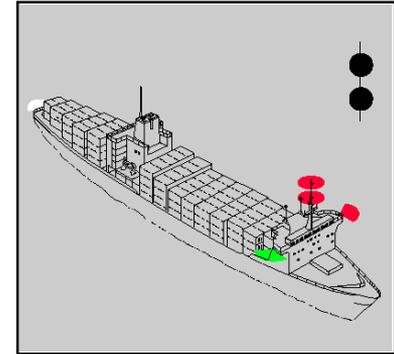
Trawling



Rule 3 Definitions



- Vessel not under command
 - Unable to maneuver as required by the Rules
 - Unable to keep out of the way of another vessel
 - What are “exceptional circumstances?”
 - Loss of main engines; Damaged shaft; Major internal damage; etc.

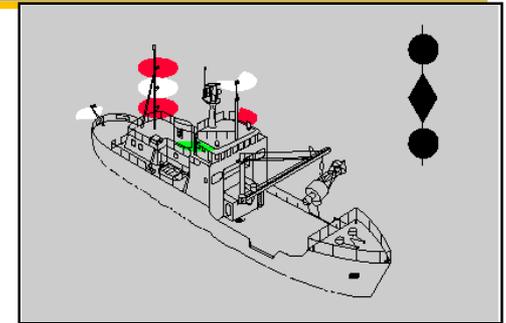




Rule 3 Definitions



- Vessel restricted in her ability to maneuver
 - FROM THE NATURE OF HER WORK is restricted in her ability to maneuver as required by these Rules
 - Unable to keep out of the way of another vessel
 - Includes towing ONLY if severely restricted in ability to deviate from their course

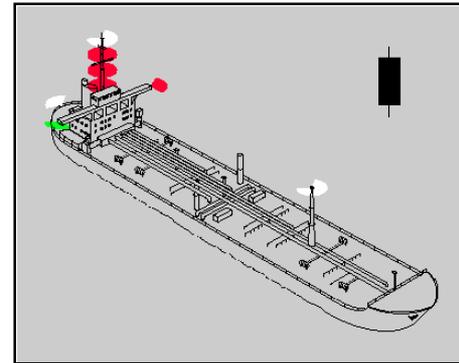




Rule 3 Definitions



- Constrained by draft
 - International only
 - Draft in relation to the available depth *and width* of navigable water
 - No inland equivalent because “such a subjective rule might lead to abuses and result in a situation wherein a vessel considering herself constrained by her draft claims a right of way to which she is not entitled thereby creating a dangerous situation” - Farewell





Rule 3 Definitions



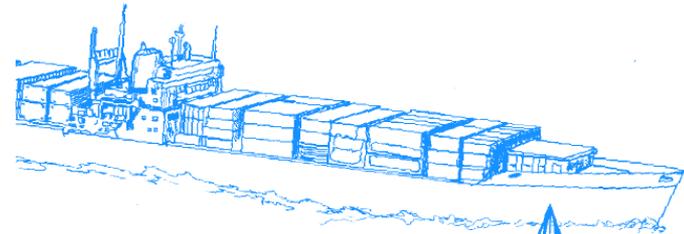
- Additional Inland terms
 - Western Rivers
 - Great Lakes
 - Secretary
 - Inland Waters
 - “Inland Rules” or “Rules”
 - International Regulations

NAVIGATION RULES

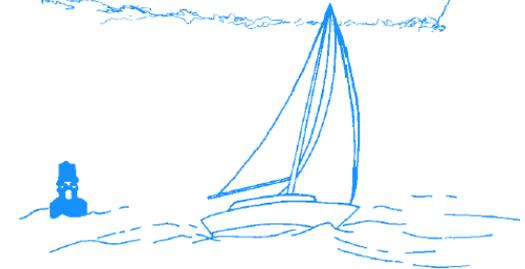
U.S. Department
of Transportation
**United States
Coast Guard**



NAVIGATION RULES
INTERNATIONAL—INLAND



COMDTINST M16672.2D





Part B

Steering and Sailing Rules

Subpart I – Conduct of Vessels in *Any*
Condition of Visibility



Rule 4 Application



- Application of Rules 4-10
 - *Any* condition of visibility





Rule 5 Look-out



- Maintain a proper lookout by all available means underway AND at anchor
 - Sight and hearing
 - Designated comms watch to enable listening in restricted visibility
 - Bearing circles, alidades and night vision
- Is your look-out maintaining a proper watch in foul weather?
 - Support your lookout with foul weather and cold weather gear
- Must be trained to “make a full appraisal of the situation...”





Rule 6 Safe Speed



- Determinants of Safe Speed
 - Draft of vessel in relation to charted depth
 - Stopping distance and turning ability
 - Presence of background lighting
 - State of winds, sea, and current
 - State of visibility
 - Traffic density
- “Fast enough to maneuver,
slow enough to stop in time”

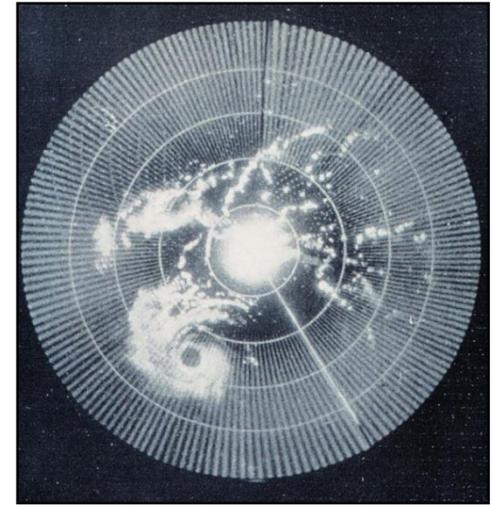




Rule 6 Safe Speed



- Vessels with operational radar should also consider:
 - Characteristics, efficiency and limitations of the radar set
 - Constraints imposed by range scale in use
 - Effect on radar of sea state, weather or other interference
 - Possibility that small vessels, objects, or ice may not be detected by radar at an adequate range to avoid collision
 - Number, location, and movement of vessels detected
- Must reassess as conditions change!





Rule 7

Risk of Collision



- Every vessel shall use all available means *appropriate to the prevailing circumstances* to determine if risk of collision exists
 - Early use of RADAR or equivalent systematic observation of detected objects...MOBOARDS!
 - Systematic observation
- DO NOT make assumptions on scanty information
 - Corroborate sources of data
- CBDR = risk of collision
- Assume risk of collision exists if not sure





Rule 8

Action to Avoid Collision



- Any action taken to avoid collision :
 - Shall *be positive*, made in ample time, and with due regard to the observance of good seamanship
 - Should be large enough to be readily apparent to the other vessel
 - Avoid small alterations of course and speed.
 - Given ample sea room, course change alone is most effective
- The effectiveness of the action shall be carefully checked until the vessel is passed and clear





Rule 8

Action to Avoid Collision



- There's only two variables you can alter to avoid collision: course and speed
- If necessary, slacken speed to allow more time to analyze the situation or avoid collision
- Even if you are the stand on vessel, you still must take action to **AVOID COLLISION**





Rule 8

Action to Avoid Collision



- A vessel required by any rule in this part not to impede another vessel's passage SHALL take early action
- If you must not impede a vessel, you must be fully aware of the action required by your vessel under the Rules
- If you are the stand-on vessel, you are still responsible for preventing collision



Rule 9

Narrow Channels



- The basics
 - Stay on the “right” side of the channel
 - Sailing vessels, fishing vessels, and vessels less than 20 meters shall not impede vessels restricted to the channel
- Crossing vessels shall not impede vessels which can only safely operate in the channel
- *If the circumstances of the case admit* do not anchor in a channel





Rule 9

Narrow Channels



- Rule 9 (e) i (International)
 - Signals SHALL be sounded “when overtaking can take place *only* if the vessel to be overtaken has to take action to permit safe passing”
- Rule 9 (e) i (Inland)
 - Signals SHALL be exchanged for *all* overtaking situations
- Danger signal required if *any doubt exists* (•••••)
 - This signal is used *before* a vessel is in extremis so confusion can be resolved
- Signal and response when approaching a bend (–)

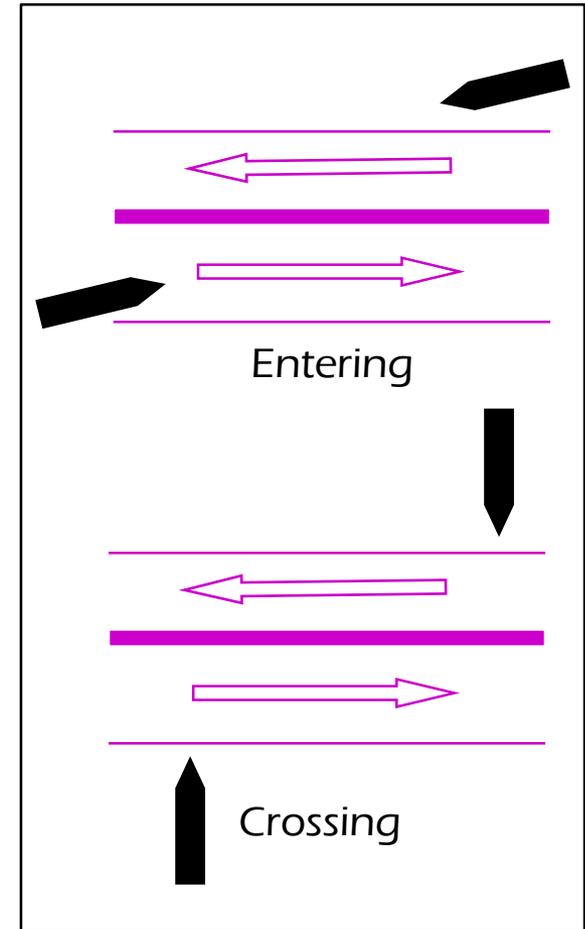


Rule 10

Traffic Separation Schemes



- The basics
 - Use small angle of approach to enter/depart
 - Cross the scheme at right angles
 - Only proceed in the correct lane
 - If possible, do not proceed in the separation zone or use inshore traffic zone except entering or leaving the TSS
 - Do NOT proceed in the wrong direction
 - If not using the TSS avoid it by as much as possible



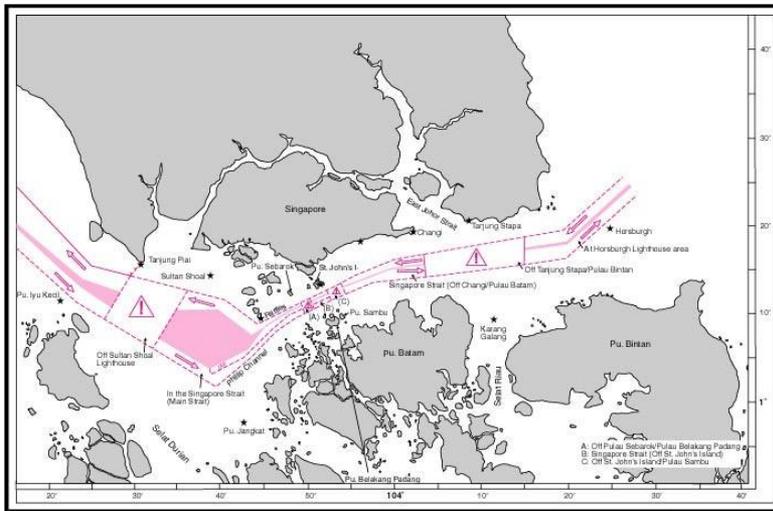


Rule 10

Traffic Separation Schemes



- Applies to traffic separation schemes adopted by IMO. Does *not* relieve any vessel of her obligation under any other rule.
 - TSS is just paint on the chart (different than a narrow channel)
 - Normal rules to determine stand-on and give-way apply





Rule 10

Traffic Separation Schemes



- Sailing vessels, fishing vessels, vessels less than 20 meters shall not impede the safe passage of a power-driven vessel following a traffic lane
 - May use inshore traffic zone





Rule 10

Traffic Separation Schemes

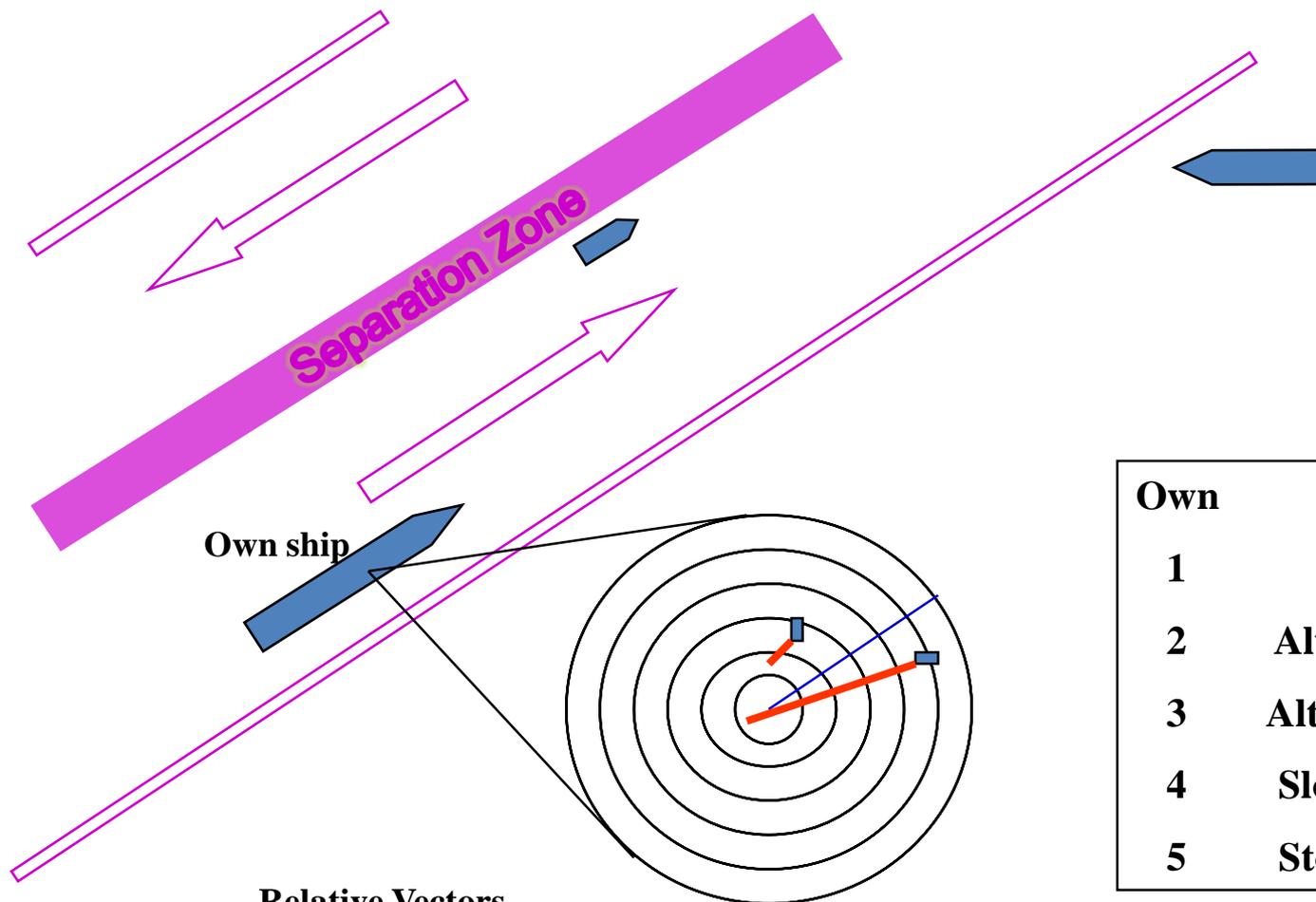


- Exceptions to the Rule to extent necessary to carry out their work
 - R.A.M. when engaged in an operation for the maintenance of safety of navigation in a TSS
 - R.A.M. when engaged in an operation for the laying, servicing, or picking up of a submarine cable





Rules of the Road Scenario 1



ARPA: Relative North-up
6 mile scale

Own		Target
1	Stand- on	1
2	Alter to Stbd	2
3	Alter to Port	3
4	Slow Down	4
5	Stop	5

Relative Vectors
12 minutes(red tails)



Part B

Steering and Sailing Rules

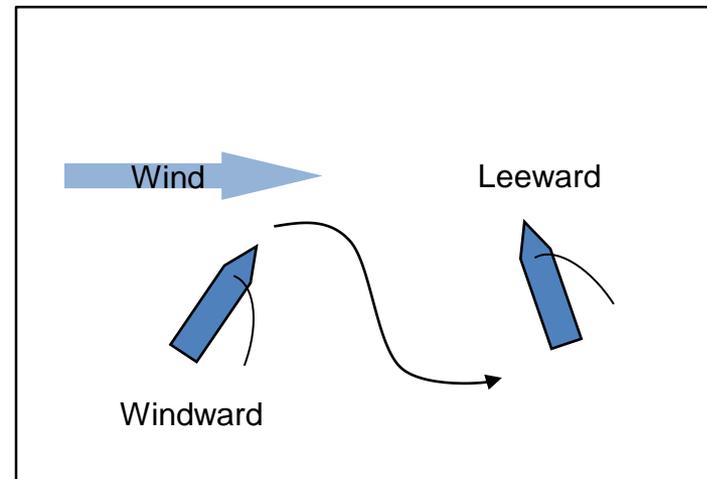
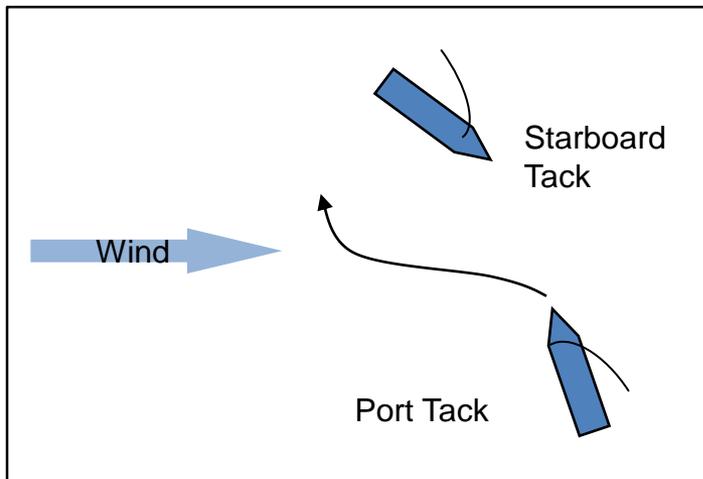
Section II – Conduct of Vessels in
Sight of One Another



Rule 11 & Rule 12 Application



- Rule 11
 - These Rules apply to vessels in sight of one another
- Rule 12
 - Port tack yields to starboard tack
 - Windward yields to leeward vessel on same tack

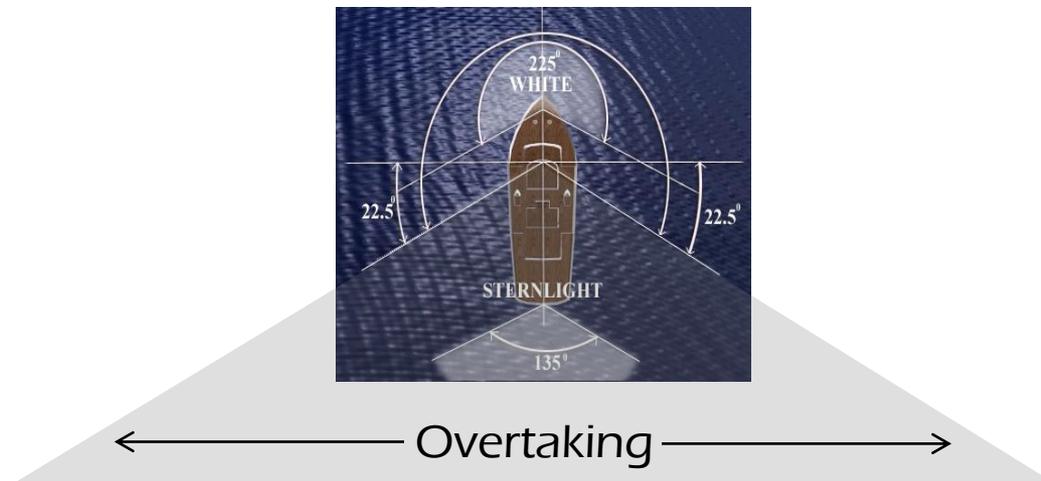




Rule 13 Overtaking



- Must be approaching from two points (22.5°) abaft the beam to be overtaking
- At night this means the overtaking vessel can only see the stern light of the vessel being overtaken.
 - Will also see all around lights and towing lights if they are required by the vessel being overtaken





Rule 13

Overtaking



- Any vessel overtaking any other vessel SHALL keep out of the way of the vessel they are overtaking
 - What does it mean when the Rules state “notwithstanding anything contained in Rules 4-18...”
 - Other Rules may prevail, for example narrow channels, TSS
- When in doubt assume you are overtaking. DO NOT assume you are overtaken...why?
- Once an overtaking situation, always an overtaking situation until overtaking vessel is past and clear



Rule 14

Head-on Situation



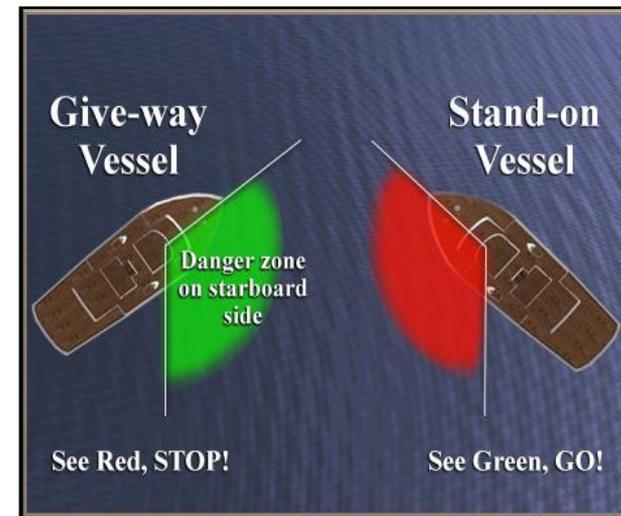
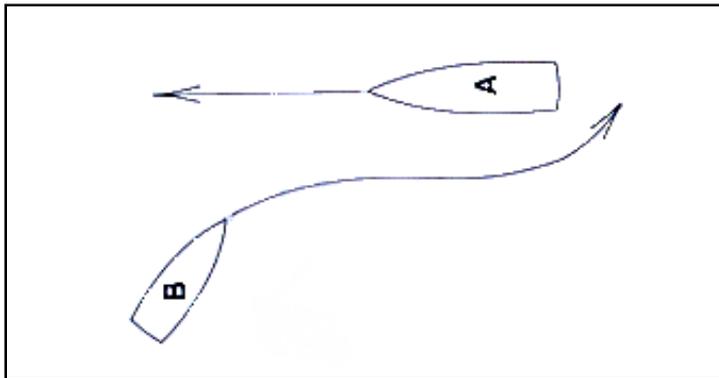
- Two power-driven vessels, reciprocal or near reciprocal courses, risk of collision
 - Rule of thumb for defining “nearly reciprocal” $\sim 6^\circ$ off your vessel’s course when the contact’s relative bearing is $\sim 6^\circ$ off the bow
- At night, masthead lights in a line, or nearly so, and both side lights. During the day the corresponding aspect
- DO NOT assume a crossing situation if in doubt, but always assume head-on
 - Dual action rule



Rule 15 Crossing Situation



- Must be two power-driven vessels, crossing (not head-on or overtaking), and involve risk of collision
- The vessel which has on her starboard side another vessel crossing must give-way
- As the give-way vessel, avoid crossing the bow when maneuvering to avoid collision





Rule 16

Action by Give-way Vessel



- ...So far as possible take EARLY and SUBSTANTIAL action to keep well clear
 - May not be able to maneuver immediately
 - Don't drive yourself into another collision or aground
 - Show a distinct change in aspect



Click 17

Action by Stand-on Vessel



- Maintain course and speed
- MAY change course and speed when it is apparent the give-way is not taking action
 - Hull down is not “within sight” as that vessel can not see you and you probably have a poor perspective on target angle
 - When you do take action, AVOID whenever possible turning to port for a vessel on your port side
- SHALL take action when everything the give-way vessel can possibly do is not enough to avoid collision
 - You are already in extremis! Do something NOW!



Rule 18

Responsibilities Between Vessels



- | | | |
|-------------|----------------|------------|
| • NAV | • N.U.C | • New |
| • Rules | • R.A.M. | • Reels |
| • Can | • C.B.D | • Catch |
| • Frustrate | • Fishing | • Fish |
| • Some | • Sailing | • So |
| • People | • Power-driven | • Purchase |
| • Say | • Sea Plane | • Some |
| • What?! | • W.I.G. | • Weekly |
- Rules 9, 10, and 13 are exceptions to this Rule



Part B

Steering and Sailing Rules

Section III – Conduct of Vessels *in (or near) Restricted Visibility*



Rule 19

Conduct of Vessels in Restricted Visibility



- Applies to vessels NOT in sight of each other IN OR NEAR restricted visibility
- At all times:
 - Proceed at safe speed “adapted to the prevailing circumstances and conditions of restricted visibility”
 - Power-driven will have engines ready to maneuver
 - Reassess how we comply with Rules 4-10. Adapt to the prevailing circumstances!

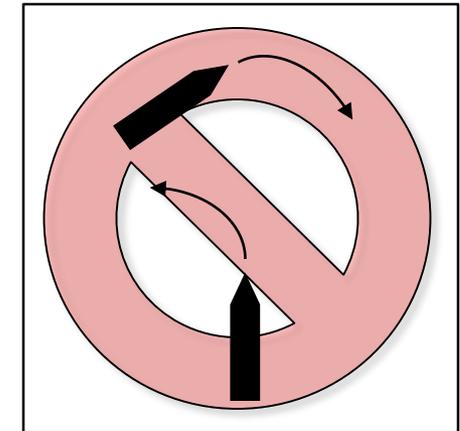
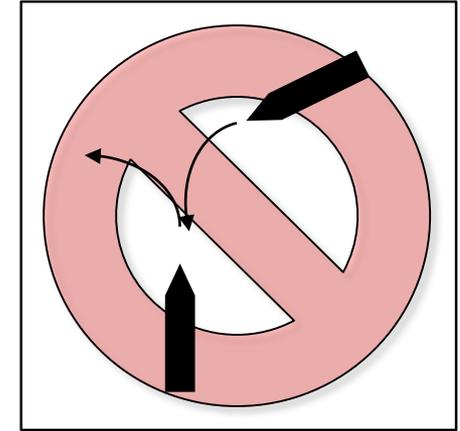


Rule 19

Conduct of Vessels in Restricted Visibility



- Detecting a vessel by RADAR alone
 - Determine if a close quarters situation is developing and if risk of collision exists
 - Take avoiding action in ample time (if risk of collision)
 - When taking avoiding action DO NOT:
 - Turn port for a vessel forward of your beam except overtaken vessels
 - Turn toward a vessel on or abaft your beam (turning *port* here may be ok!)





Rule 19

Conduct of Vessels in Restricted Visibility



- Detecting a fog signal forward of the beam or can not avoid close quarters with a vessel forward of the beam
 - Reduce speed to bare steerageway
 - If needed, take all way off. What is disadvantageous about this?
 - ALWAYS navigate with extreme caution





Rules of the Road Part 2



Enabling Objectives



- Know the U.S. Inland Rules of the Road and the International Regulations for preventing collision at sea



Part C

Lights and Shapes



Rule 20 Application



- These Rules shall be complied with in ALL weathers
- Rules concerning lights shall be complied with
 - From sunset to sunrise
 - From sunrise to sunset during restricted visibility
 - MAY be displayed in all other circumstances
- Any additional lights
 - Cannot be mistaken for lights specified in these rules
 - Must not obscure the lights in the Rules
 - Must not interfere with a proper lookout





Rule 20 Application



- Day shapes shall be displayed from sunrise until sunset
- Purpose of Lights and Day shapes:
 - Helps determine stand on/give way status
 - Indicates the occupation of certain vessels
 - Aids in the determination of target angle and course

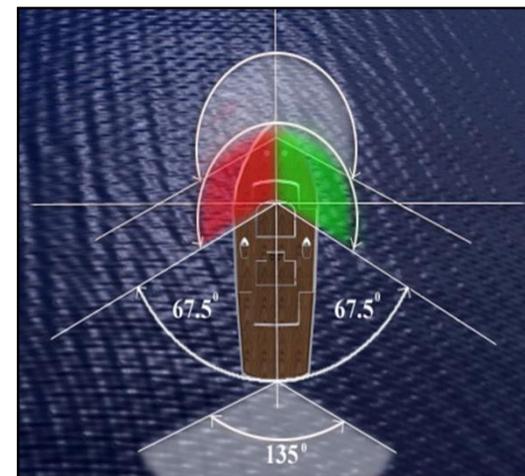
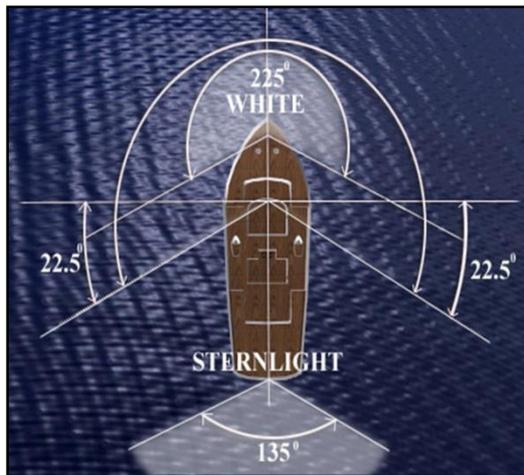




Rule 21 Definitions



- Masthead light
 - Inland: vessels less than 12m as close to centerline as possible
- Side lights
 - Both: vessels less than 20m can combine
 - Inland: vessels less than 12m as close to centerline as possible





Rule 21 Definitions



- Sternlight
 - White, 135° arc centered on the stern
- Towing light
 - Yellow, 135° arc centered on the stern
- All Around light
 - Any color, 360 °
- Flashing light
 - Any color, 120 fpm or more
- Special Flashing light (Inland Only)
 - Yellow, 50-70 fpm, as far forward as possible, 180 °-225 ° arc centered on the bow



Rule 22

Visibility of Lights



- The following are MINIMUM luminous ranges for lights

TYPE	COLOR	ARC	≥50m	12-50m	<12m
Masthead	white	225	6 nm	5 nm	2 nm
Sidelight red/green		112.5	3 nm	2 nm	1 nm
Sternlight	white	135	3 nm	2 nm	2 nm
Towing	yellow	135	3 nm	2 nm	2 nm
All-round	various	360	3 nm	2 nm	2 nm

- Special flashing light – 2 nm
- White, all-round light on inconspicuous, partly submerged object – 3 nm

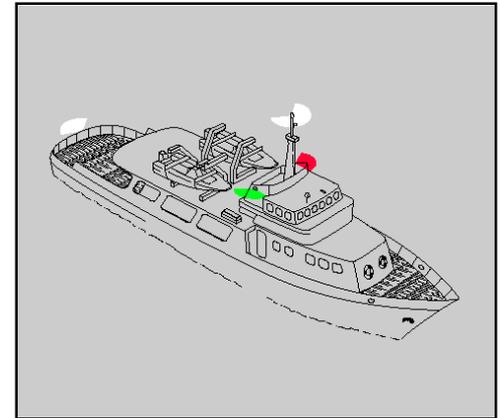
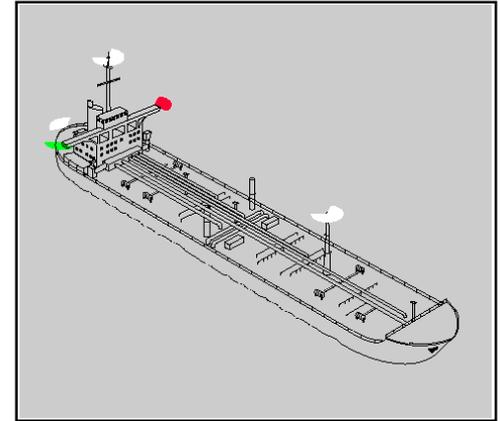


Rule 23

Power-Driven Vessels Underway



- A power-driven vessel underway
 - Masthead light forward;
 - Second masthead light abaft of and higher than the forward one; vessel of less than 50 meters in length shall not be obliged to exhibit such light but may do so
 - Sidelights
 - Sternlight
- This configuration used while making way AND not making way

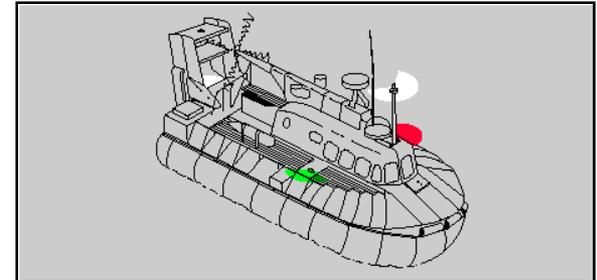
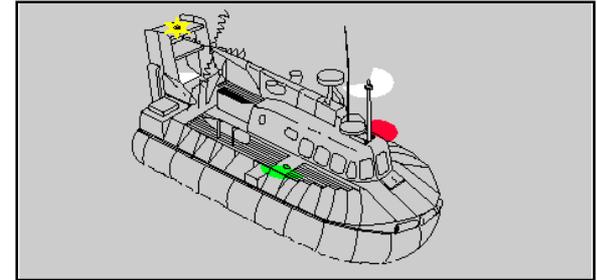




Rule 23 Power-Driven Vessels



- Air-cushion vessel operating in the non-displacement mode exhibits an all-round flashing yellow light (otherwise normal power-driven lights)



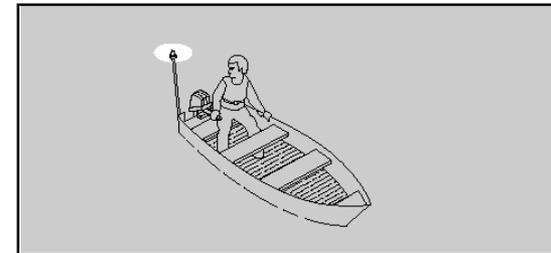
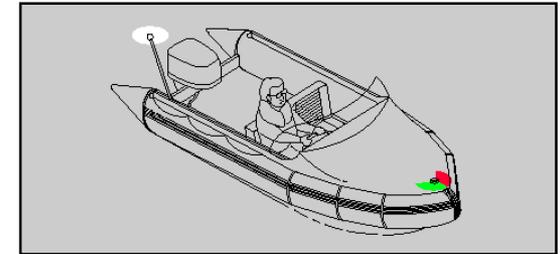


Rule 23

Power-Driven Vessels



- (International Only) W.I.G. – When taking off, landing and in flight near the surface, add a high intensity, all-round flashing red light
- Vessel <12m may exhibit an all-round white light and side lights
 - May be displaced from centerline but must still be in line with each other and side lights must be combined
- (International only) Vessel < 7m which does not go faster than 7 kts may display an all-round white light



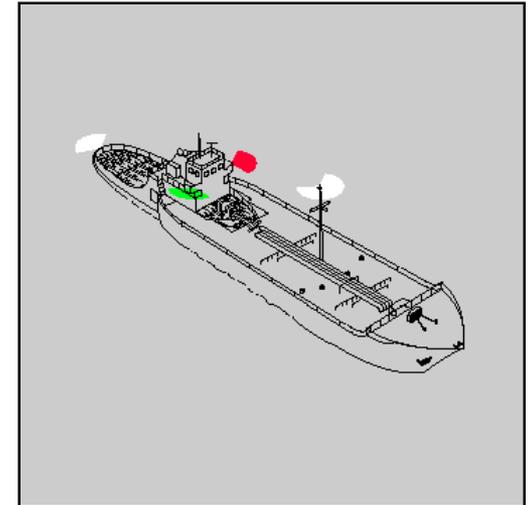


Rule 24

Towing and Pushing



- Only three groups of towing configurations
 - Composite Unit
 - Towing astern (same for International and Inland)
 - Towing Alongside / Pushing Ahead
- Composite Units
 - Rigidly connected composite units are treated as a single power driven vessel (applies to sound signals as well)
 - (Interpretive rules) Does not include vessels connected by lines, hawsers, wires or chains



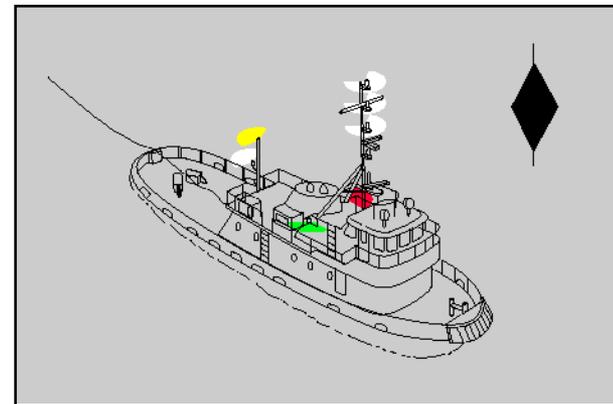
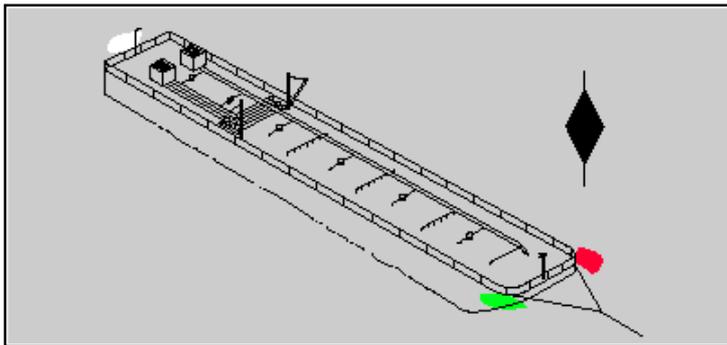


Rule 24

Towing and Pushing



- Towing Astern
 - Four masthead light configurations dependent on size of the vessel towing and length of the tow
 - Towing vessel $\geq 50\text{m}$ must display headlights IAW Rule 23 (a)(ii) and, for inland, 23 (a)(i)
 - Tow $\leq 200\text{ m}$: Two masthead lights in vertical line
 - Tow $> 200\text{ m}$: Three masthead lights in vertical line and diamond day shape (also on towed vessel)



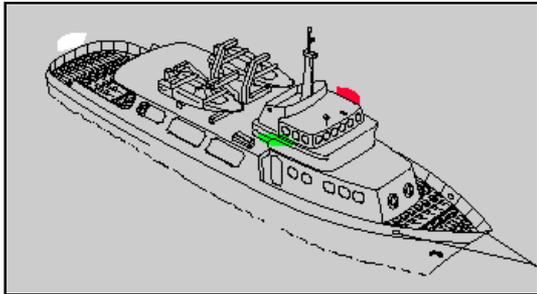
Towing vessel $< 50\text{m}$, tow $> 200\text{m}$



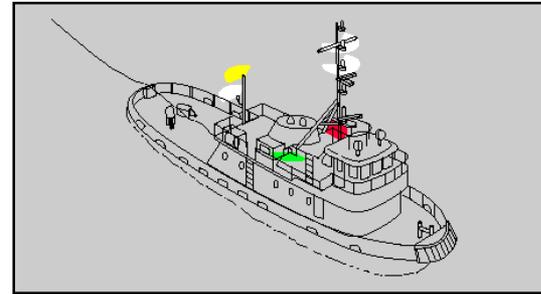
Rule 24 Towing and Pushing



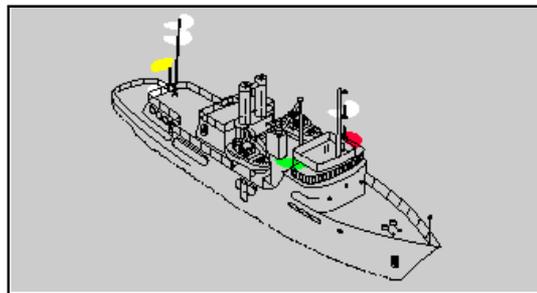
- Towing Astern (cont'd)
 - All ships towing display a yellow towing light in a vertical line above the stern light
 - Object being towed will display stern light and side lights



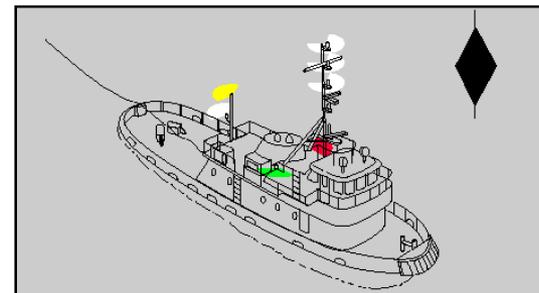
Vessel being towed



Towing vessel < 50m, tow < 200m



Towing vessel > 50m, tow < 200m



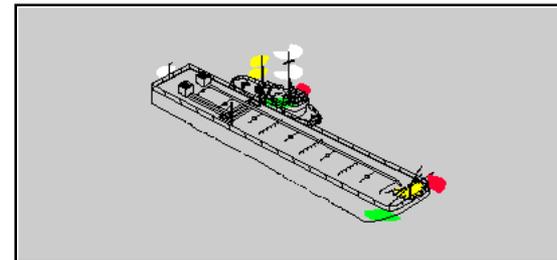
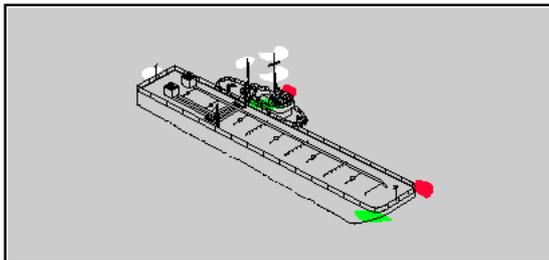
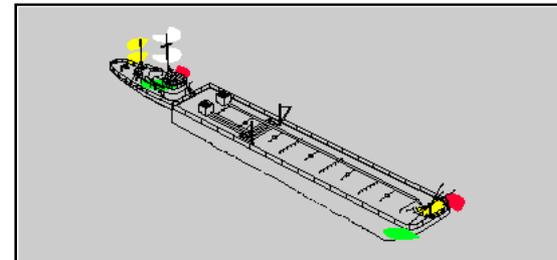
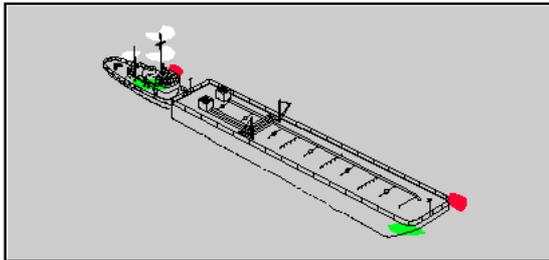
Towing vessel < 50m, tow > 200m



Rule 24 Towing and Pushing



- Pushing Ahead / Alongside
 - Two masthead lights in vertical line for ALL cases
 - (Inland) Two towing lights at the stern and a special flashing light on the object being towed/pushed
 - Object being towed/pushed also displays side lights and, for alongside a sternlight



International

Inland

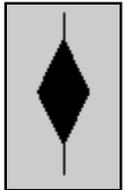


Rule 24

Towing and Pushing



- Partially submerged object being towed shall display:
 - One all-round white light at the aft end and one at the forward end (except a dracone)
 - Diamond shape at or near the end (if >200m tow, diamond also at the front INTERNATIONAL)
 - Additional lights shall be used so that the distance between any two lights is not greater than 100m.
 - International: If the object is greater than 25m wide, two additional all-round white lights shall be used to mark the extremities (total of four white lights)
 - Inland: ≥ 25 m wide, four all-round white lights to mark its length and breadth

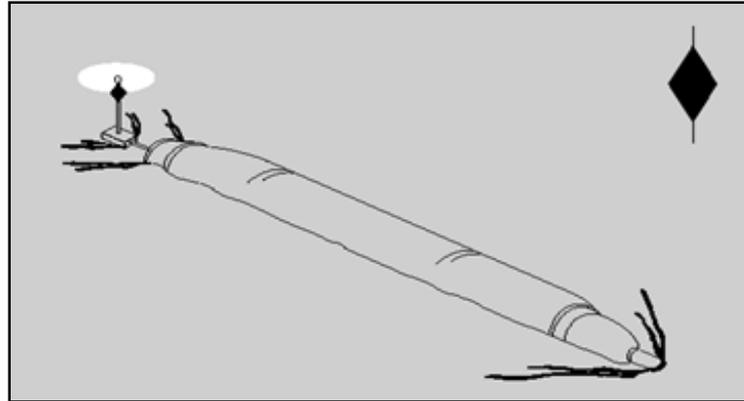




Rule 24 Towing and Pushing



- International Only: Dracones are the exception to the Rule
 - Only one white light and one diamond on the stern is required





ATP-1 Volume 1

Considerations for Naval Operations



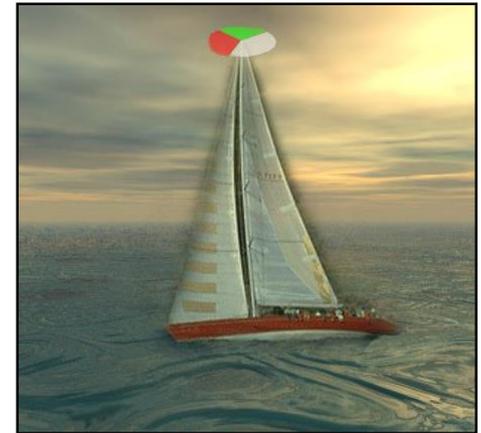
- Vessels hold right of way depending on their operations
- The following are listed in order of precedence
 - Helo with SONAR in the water (at the dip)
 - Mine Countermeasure Units including helos
 - Ships engaged in underway replenishment
 - Launching or recovering amphibious craft
 - Launching or recovering aircraft
 - Deploying or recovering towed arrays



Rule 25 Sailing Vessels



- Lights and Shape
 - Sidelight and a sternlight
 - Sailing vessels less than 20m in length may combine the lights into one lantern carried where it can best be seen
 - A vessel proceeding under sail when also being propelled by machinery shall exhibit forward where it can best be seen a conical shape, apex downward





Rule 25 Sailing Vessels



- Lights
 - A sailing vessel may also show an all-round red light over an all-round green light in a vertical line near the top of the mast. These lights may not be shown in conjunction with a combination lantern.
 - “Red over green, sailing machine.”



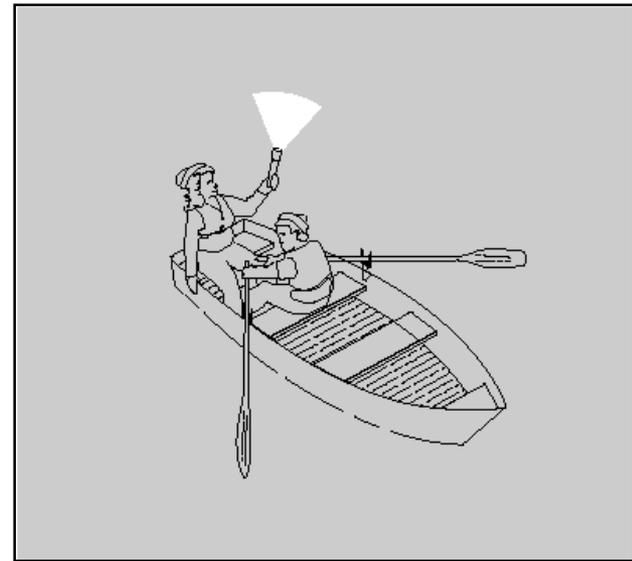
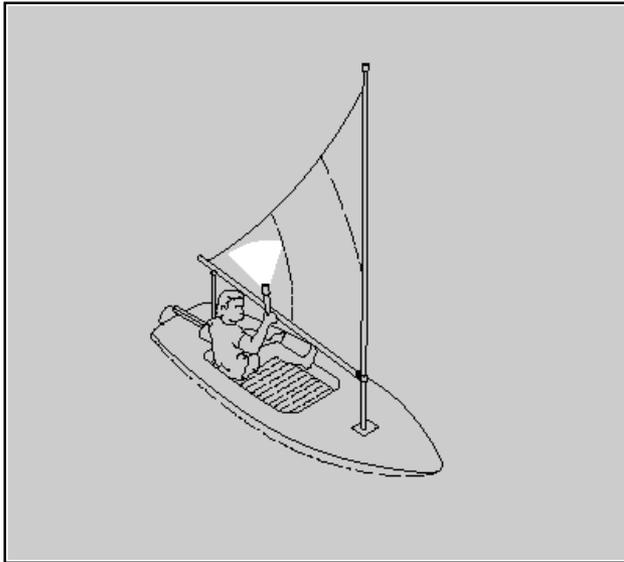


Rule 25

Sailing Vessels



- Sailing vessels less than 7m and vessels under oars SHALL have an “electric torch or lighted lantern” to be exhibited in time to prevent collision



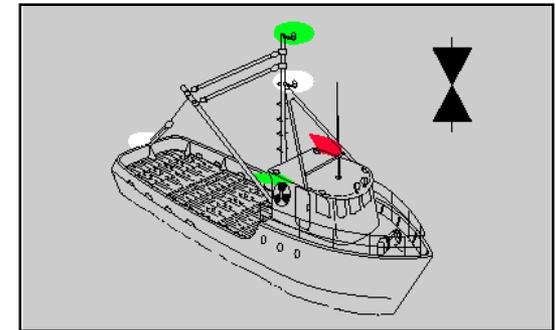


Rule 26

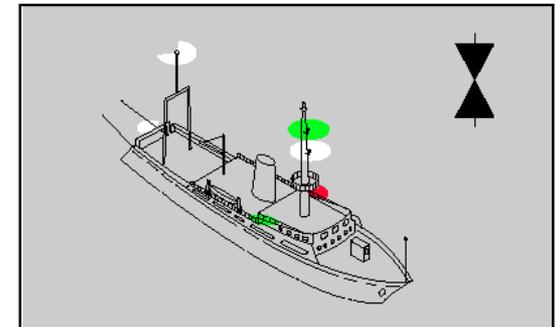
Fishing Vessels



- Fishing underway or at anchor, shall exhibit only the lights and shapes prescribed in this Rule (no anchor lights)
- Vessels engaged in trawling
 - A Green all-round light over a white all-round light
 - If > 50m, a masthead light abaft and higher than the all-round green light
 - *When making way* sidelights and sternlight
 - Dayshape – two cones in vertical alignment with their apexes together



Trawling < 50m



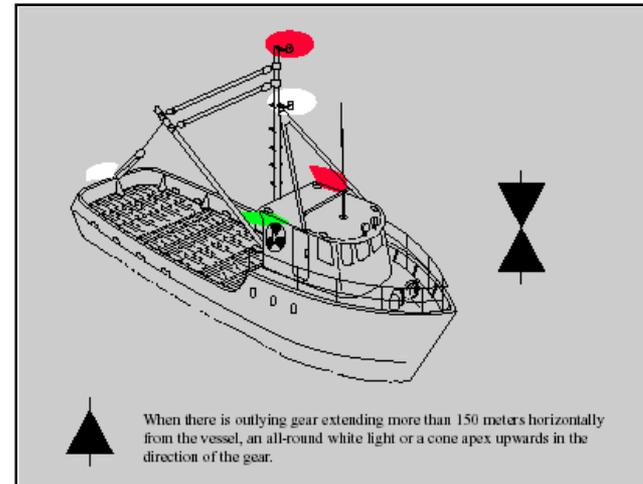
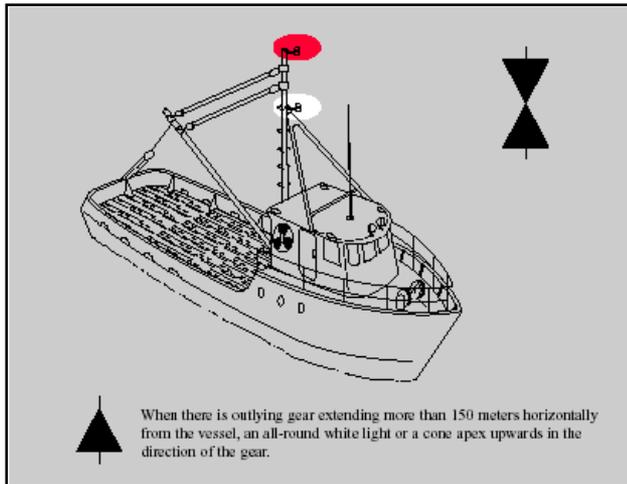
Trawling > 50m



Rule 26 Fishing Vessels



- Vessels engaged in fishing other than trawling
 - Red light over a white light
 - If outlying gear extends more than 150m horizontally from the vessel, a white all-round light or cone apex upward in the direction of the gear
 - NO masthead lights



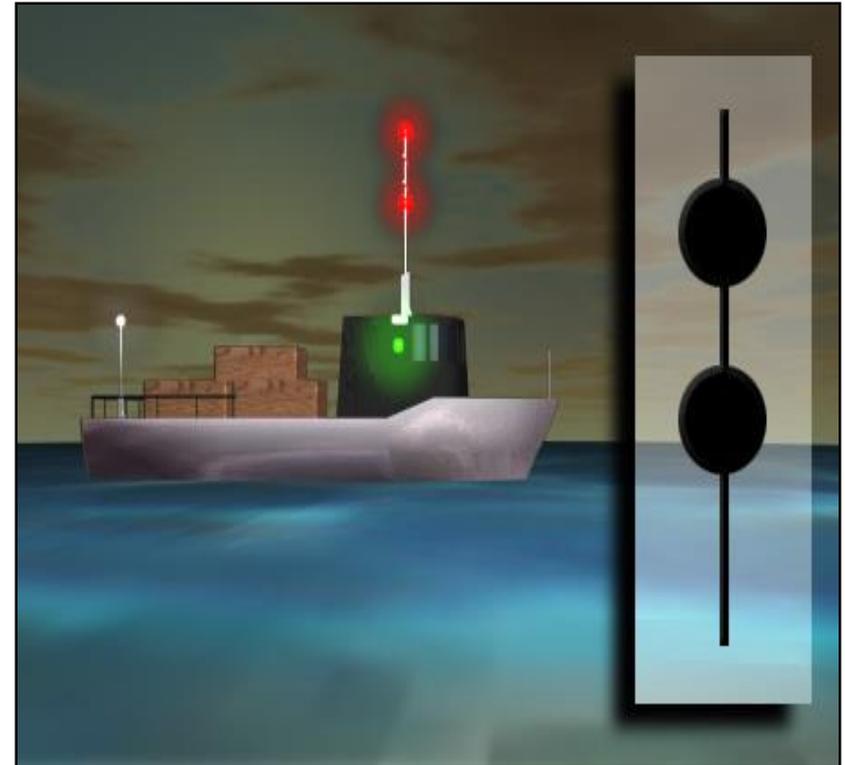


Rule 27

Vessels Not Under Command



- Red all-round light over a red all-round light
- Sternlight and sidelights ONLY when making way
- Dayshape – two balls in a vertical line
- NO masthead lights



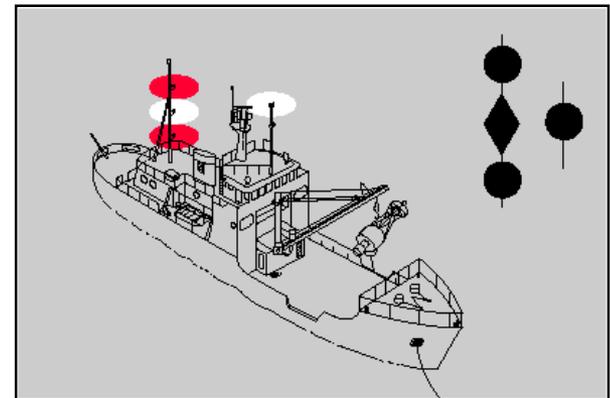
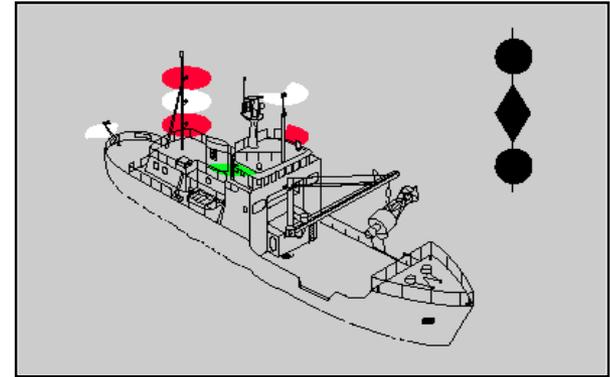


Rule 27

Vessels Restricted in their Ability to Maneuver



- A vessel restricted in her ability to maneuver, besides one engaged in mine clearance ops
 - Red over white over red all-round lights
 - Sternlight, masthead light or lights, sidelights and sternlight when making way
 - Those lights or dayshapes prescribed in Rule 30 if anchored
- Dayshape – Ball over diamond over ball



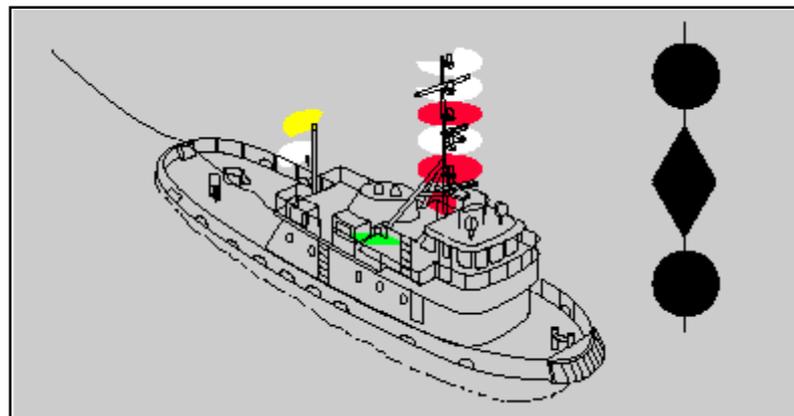


Rule 27

Vessels Restricted in their Ability to Maneuver



- If also engaged in towing, the vessel shall exhibit those lights required by Rule 24
 - Only applies to towing astern for International



Towing while RAM

"Severely restricts...their ability to deviate from their course."

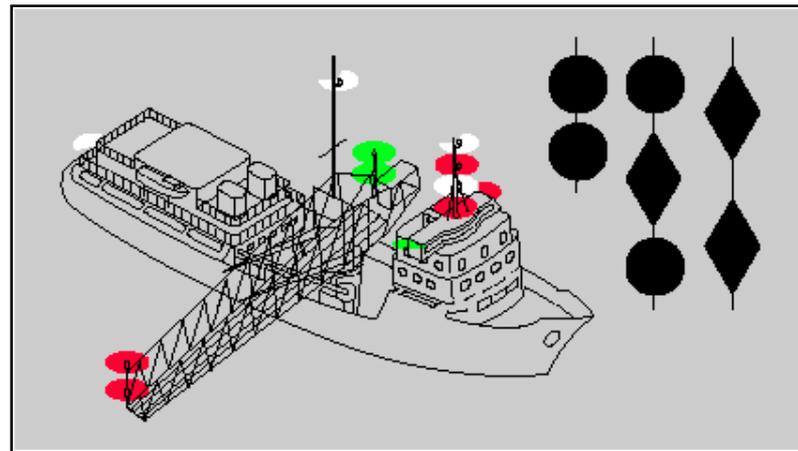


Rule 27

Vessel Restricted in Ability to Maneuver



- Dredging or underwater operations (includes divers)
 - Two all-round red lights or balls to indicated the side on which the obstruction exists
 - Two all-round green lights or diamonds on the side which another vessel may pass
 - When at anchor, these shapes *instead* of those prescribed in rule 30



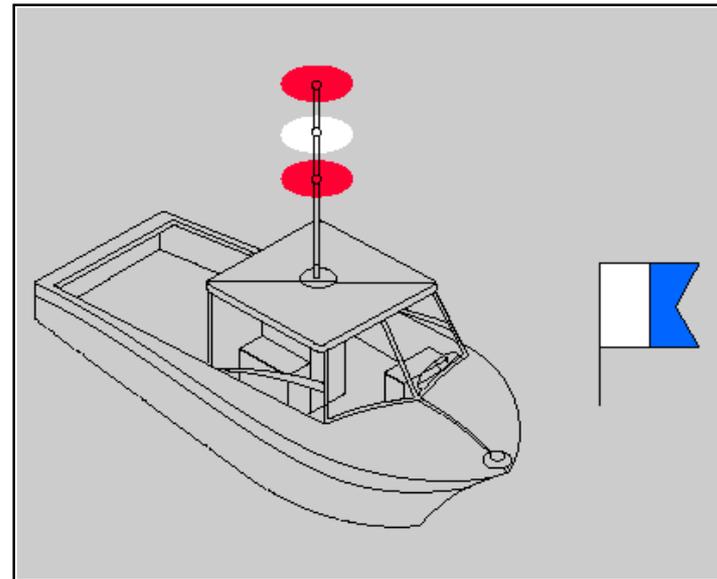


Rule 27

Vessels Restricted in their Ability to Maneuver



- Small vessel engaged in diving operations shall exhibit:
 - Red over white over red all-round lights
 - Rigid replica of International Code Flag “A” not less than 1 meter in height (at night as well)



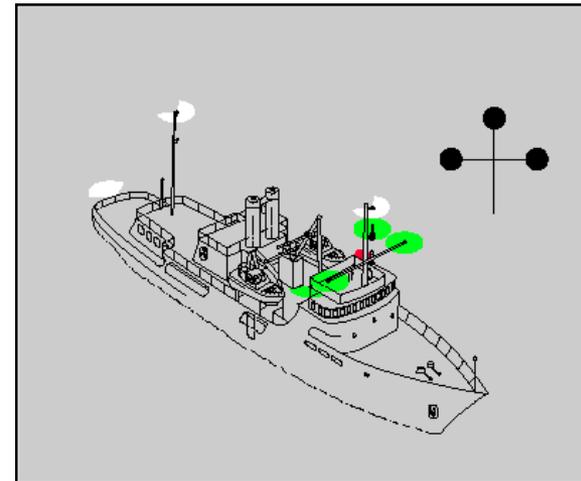
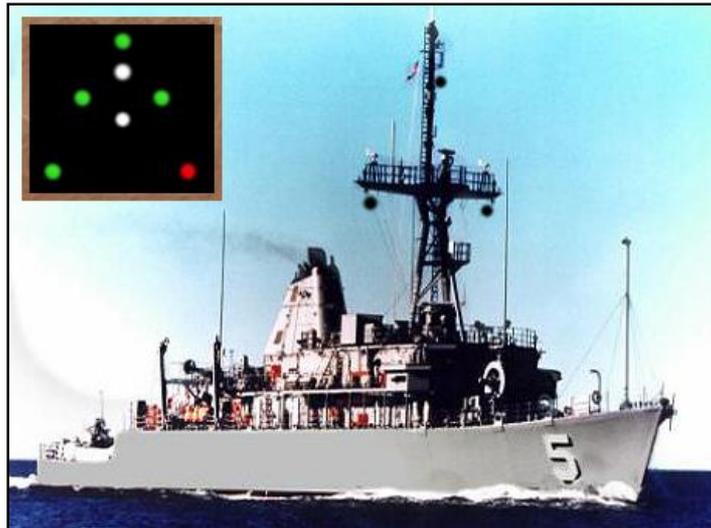


Rule 27

Vessels Restricted in their Ability to Maneuver



- A vessel engaged in mine clearance ops shall exhibit
 - The lights prescribed for a power driven vessel or a vessel at anchor
 - Three all-round green lights or balls one at the foremast head, one on each yardarm
 - This indicates that it is dangerous to approach within 1000 meters



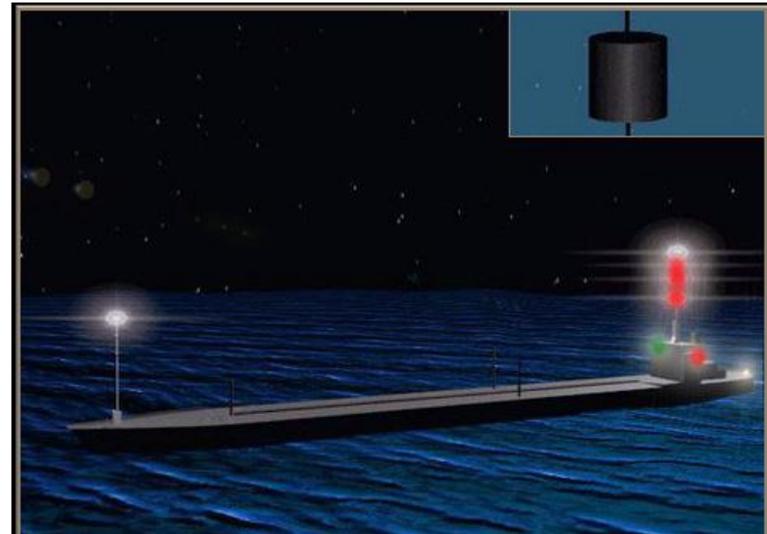
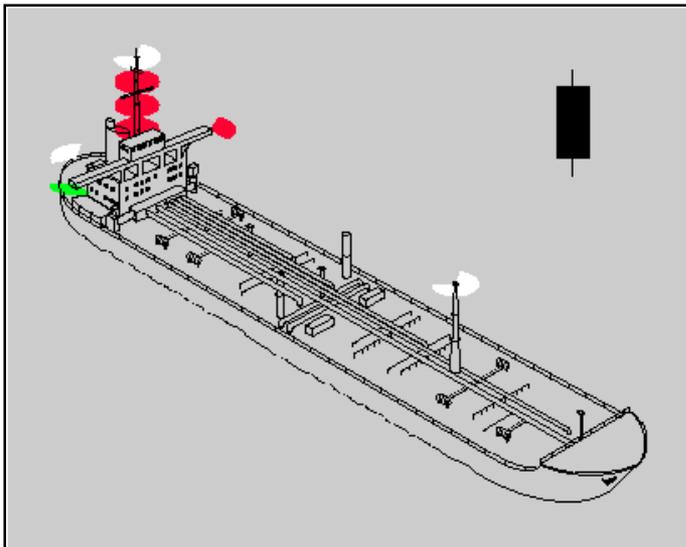


Rule 28

Vessels Constrained by Draft



- A vessel constrained in her draft *may*, in addition to the lights prescribed for a power driven vessel (Rule 23), exhibit:
 - Three all-round red lights in a vertical line
 - A cylinder

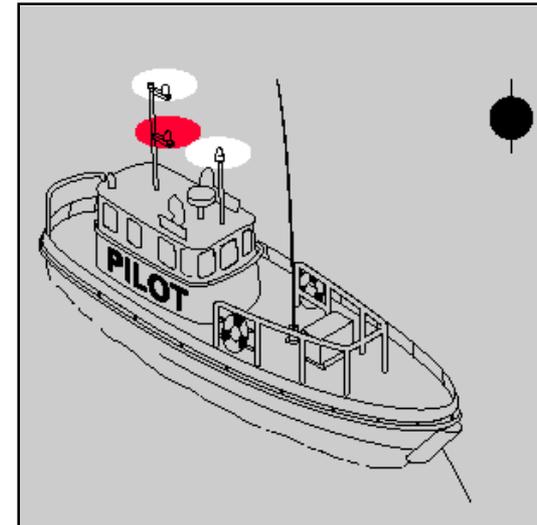




Rule 29 Pilot Vessel



- White all round light over a red all round light
- When underway, sidelights and sternlight
- If anchored additionally those lights prescribed in Rule 30



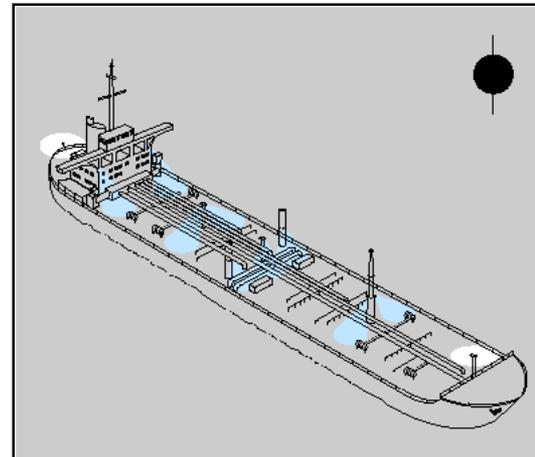
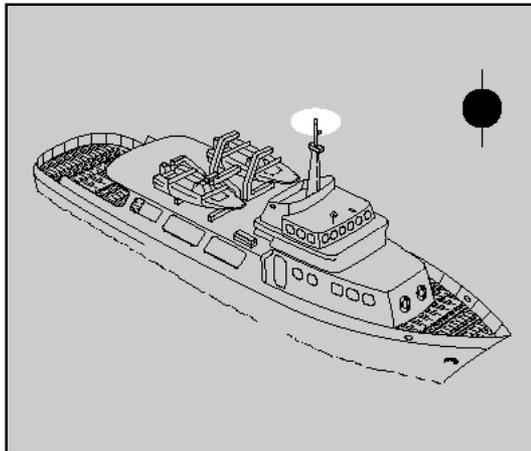


Rule 30

Anchored and Aground Vessels



- A vessel at anchor shall exhibit:
 - An all-round white light or ball in the fore part
 - An all-round white light at or near the stern lower than the light in the fore part
 - Vessel of $< 50\text{m}$ may exhibit an all-round white light
 - A vessel $\geq 100\text{m}$ in length shall use available lights to illuminate her decks



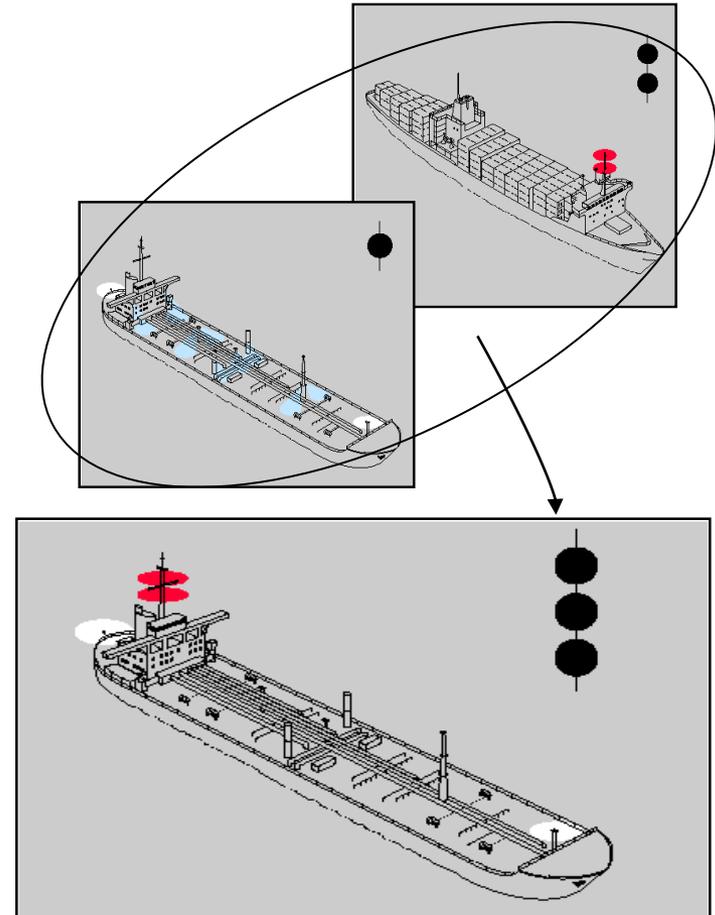


Rule 30

Anchored and Aground Vessels



- A vessel aground (combine NUC and anchored)
 - Two all-round red lights in a vertical line
 - Three balls in a vertical line
 - An all-round white light or ball in the fore part
 - An all-round white light at or near the stern lower than the light in the fore part
 - Vessel of < 50m may exhibit a single all-round white light





Rule 31 Seaplanes



- If a seaplane or a WIG craft cannot exhibit lights and shapes of the characteristics or in the positions prescribed in this Part, she SHALL display lights and shapes as closely as possible.



Part D

Sound and Light Signals



Rule 32 Definitions



- Know the basics
 - Whistle
 - Bell
 - Gong
 - Short blast
 - Prolonged blast





Rule 33

Equipment for Sound Signals



- Vessel ≥ 12 meters shall have a whistle
- Vessel ≥ 20 meters shall have whistle and bell
- Inland: Vessels ≥ 12 meters shall have a whistle and bell (no vessel with whistle only)
- Vessel ≥ 100 meters shall have whistle, bell and gong





Rule 34

Maneuvering and Warning Signals



International

- Only 3 signals of action
- (•) “I am altering course to starboard”
- (••) “I am altering course to port”
- (•••) “I am operating astern propulsion”

Inland

- Only 1 signal of action
- (•••) “I am operating astern propulsion”
- Require agreement by both power-driven vessels crossing or meeting within ½ mile
- (•) “I intend to leave you on my port side”
- (••) “I intend to leave you on my starboard side”
- SHALL use danger signal if there is any doubt



Rule 34

Maneuvering and Warning Signals



Supplementary Light Signal

International

- Light must be all-round, white and visible for 5 miles
- (☉) “I am altering course to starboard”
- (☉ ☉) “I am altering course to port”
- (☉ ☉ ☉) “I am operating astern propulsion”

Inland

- Light must be all-round, white or yellow, visible for 2 miles and synched with the whistle
- (☉) “I intend to leave you on my port side”
- (☉ ☉) “I intend to leave you on my starboard side”
- (☉ ☉ ☉) “I am operating astern propulsion”



Rule 34

Maneuvering and Warning Signals



When in Sight and Overtaking

International

- Must be in a narrow channel, Rule 9 e (i)
- (— —●) “I *intend* to overtake you on your starboard side”
- (— —●●) “I *intend* to overtake you on your port side”
- (—●—●) “I agree”
- SHALL use danger signal if there is any doubt

Inland

- (●) “I intend to overtake you on your starboard side”
- (●●) “I intend to overtake you on your port side”
- Vessel being overtaken will repeat the signal to sound agreement
- SHALL use danger signal if there is any doubt



Rule 34

Maneuvering and Warning Signals



- (–) Vessels nearing a bend or other area where a vessel may be obscured to signal her presence
 - Vessels on other side of obstruction respond with the same signal
 - Must still arrange passage if required once in sight of one another
- (Inland Only) (–) When leaving a dock or berth



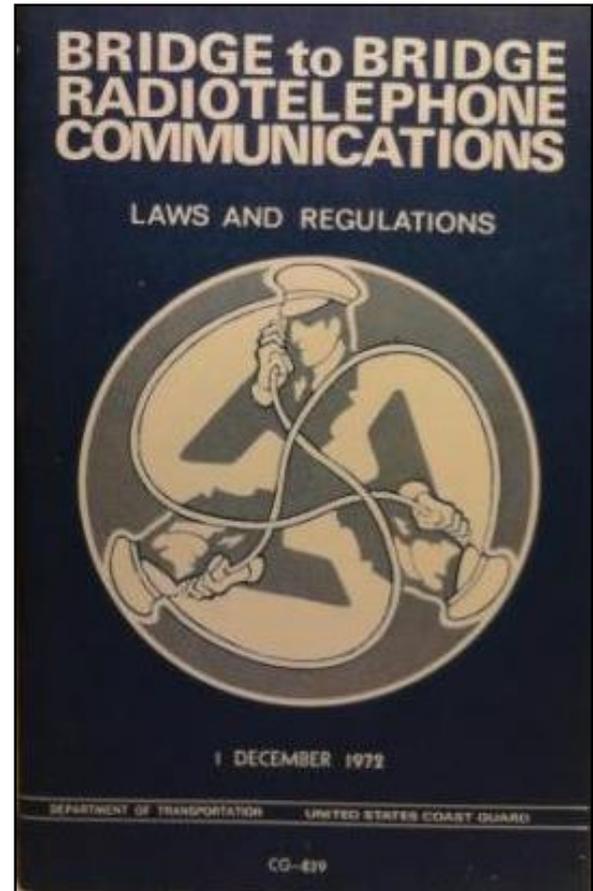


Rule 34

Maneuvering and Warning Signals



- (Inland Only) Bridge-to-Bridge passage agreement
 - Agreement may be reached by BTB rather than sound signals. If this fails, the vessels SHALL sound signals
 - Refer to page 208, Bridge-to-Bridge Radiotelephone Regulations, 33 CFR 26





Rule 35

Sound Signals in Restricted Visibility



Two Minute Signals

- (–) Power-driven vessel making way
- (– –) Power-driven vessel NOT making way
- (–●●) NUC, RAM, CBD, sailing, fishing, towing (all except composite)
 - RAM, fishing also sound this signal at anchor
- (–●●●) Manned tow (last tow if more than one)
 - Sounded immediately after (–●●) on towing vessel
- Pilot combinations
 - (–●●●●) Pilot vessel making way
 - (– –●●●●) Pilot vessel not making way



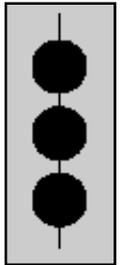
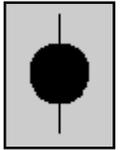
Rule 35

Sound Signals in Restricted Visibility



One Minute Signals

- Vessels at anchor
 - Vessels < 100 meters (5 sec bell)
 - Vessels \geq 100 meters (5 sec bell), (5 sec gong)
- Vessels aground
 - Vessels < 100 meters *****(5 sec bell)*****
 - Vessels \geq 100 meters *****(5 sec bell)*****, (5 sec gong)
- Pilot combinations
 - (5 sec bell ●●●●) Pilot vessel < 100 meters anchored
 - (5 sec bell, 5 sec gong, ●●●●) Pilot vessel \geq 100 meters, anchored





Rule 36

Signals to Attract Attention



- Sound or light signals that cannot be mistaken for any signal authorized in the Rules
- Cannot be mistaken for a navigation aid
- Strobe lights and high intensity intermittent or revolving lights SHALL be avoided
- This is NOT the danger signal or a distress signal

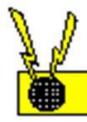




Rule 37 Distress Signals

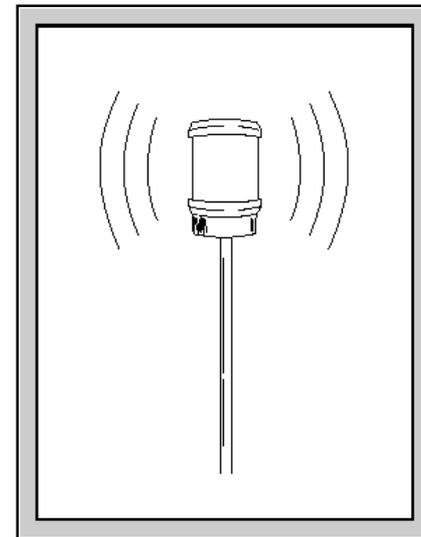


International and Inland

 RED STAR SHELLS	 FOG HORN CONTINUOUS SOUNDING	 FLAMES ON A VESSEL	 GUN FIRED AT INTERVALS OF 1 MIN.
 ORANGE BACKGROUND BLACK BALL AND SQUARE	 SOS	 "MAYDAY" BY RADIO	 PARACHUTE RED FLARE
 DYE MARKER (ANY COLOR)	 CODE FLAGS NOVEMBER CHARLIE	 SQUARE FLAG AND BALL	 WAVE ARMS
 INMARSAT	 DIGITAL SELECTIVE CALLING	 POSITION INDICATING RADIO BEACON	 SMOKE

Inland Only

- In addition, a high-intensity white light 50-70 fpm*





Rule 38 Exemptions



- Used primarily to give vessels ample time to comply with the Rules regarding installation and repositioning of lights and sound signal devices





Annexes



- Annex I
 - Positioning and Technical Details of Lights and Shapes
 - USN vessels do not comply with these specifications
- Annex II
 - Additional Signals for Trawling Vessels $\geq 20\text{m}$ using pelagic or demersal gear fishing in close proximity
 - When shooting nets shall (may – Inland) display two white lights in a vertical line
 - When hauling nets shall (may – Inland) display a white light over a red light in a vertical line
 - When nets have come fast on an obstruction shall (may – Inland) display two red lights in a vertical line



Annexes



- Annex II (cont'd)
 - Additional Signals for fishing vessels using purse seining gear may exhibit two yellow lights in a vertical line.
 - Good to review before transiting popular fishing grounds
 - Signals for Trawlers
 - Signals for Purse Seiners
- Annex III
 - Technical Details of Sound Signal Appliances



Annexes



- Annex IV
 - Distress Signals
 - 33 CFR 87 for Inland Rules
- Annex V
 - Pilot Rules (Inland Only)
 - Law Enforcement Vessels: flashing blue light
 - Public Safety Activities: alternately flashing red and yellow light
 - Moored barges
 - Dredge pipelines: Yellow, 360°, flashing 50-70 times per minute every ≤ 10 meters apart, 1-3.5 meters above the water. ALSO, two red lights at the ends.



Questions