

# COLLISION REGULATIONS



*A MEANS TO  
MASTERING THE  
COLLISION  
REGULATIONS*

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# INTRODUCTION

As a responsible seafarer we must be qualified to safely 'command' the vessel for which we are Master.

# INTRODUCTION

Includes...

- mechanical
- electrical
- structural characters of the vessel
- competent in the vessel's electronic systems

# INTRODUCTION

We must be willing to accept total responsibility for our crew and passengers.

We must commit every effort to preventing injury or damage to other life and property.

# INTRODUCTION

And after the lines have been cast....

- **Vessel Operations**
- **Emergency Procedures**
- **Radio Operations**
- **Navigational Techniques**
- **Ship Maintenance & Housekeeping**

# INTRODUCTION

And finally we must **know** the  
'Rules of the Road'.

- an essential component through which we find an opportunity to avoid **negligence** and attain total **competency**

# Collision Regulations

Internationally accepted and legislated **laws** enforced to **prevent** collisions at sea

Everyone is required to know **all** of them and follow them no matter how small or how large their vessel is

# Collision Regulations

- The hardest part of seamanship to learn and apply
- Written in a language that is very difficult to understand
- It is the one part of nautical sciences with intensive theory and a delayed practical application

# Collision Regulations

Many resources available to help learn the rules

- ☹ Usually facilitate a short-term possession of knowledge
- ☹ Only various elements of the regulations are learned

Fail to teach us why rules say what they do

# Collision Regulations

The objective of this course is to help you understand the regulations

It is easier to **remember** AND **apply** something if you understand it

# Collision Regulations

- Office Consolidation of the Collision Regulations

- TP10739

- with 1972 Canadian Modifications
- published by the Canadian Government
- Public Works and Government Services Canada

# Additional Resources

- **Argus Nautical Sciences**
  - The Wheel House Companion
  - W.H. Companion on CD
- **World Maritime Museum**
  - Lights, Shapes and Sounds
- **General Provisions on Ships  
Routeing**
  - TP 1802

# Additional Resources

- **Code of Nautical Procedures**
  - TP 1018
- **Chart 1**
- **Guidelines on Ship Reporting**
- **IMO Dangerous Goods Code**
- **Transport Canada**
  - [www.tc.gc.ca](http://www.tc.gc.ca)

# OUTLINE

- **TP10739 Format**
- **Definitions**
- **General Rules**
- **Steering & Sailing**
- **Lights and Shapes**

# OUTLINE

- **Sounds and Light Signals**
- **Canadian Modifications and Provisions**
- **Annexs**
  - **Distress Signals**
  - **Exemptions**

# Collision Regulations 101

# FORMAT

TP 10739

*A MEANS TO MASTERING THE  
COLLISION REGULATIONS*

# FORMAT

- Consolidation of Maritime Law relevant to Canada
- Bi-Lingual
- Published by Canadian Government
- Presently Contains **46** Rules
  - *divided into 6 Parts (A-F)*
  - *4 Annexes*

# Canadian vs International

Through out the regulations you will see that each rule is clearly marked either

- International
- Canadian Modification
  - Great Lakes Basin



***WHY?***

*How do the rules apply to me?*

---

**PART A**  
**General**

**It identifies where the  
responsibility lies.**

**(Rules 1-3)**

# PART A (Rules 1-3)

- Responsibilities
- General Definitions

**Note:** *Throughout the regulations there are rules of 'Application' identifying how and where the rules apply.*

# *Who has the right of way?*

---

## PART B

### Steering and Sailing Rules

Identifies protocol when  
vessels approach each  
other.

(Rules 4-19)

## **PART B**

# **Steering and Sailing Rules**

- **Look-Outs**
- **Safe Speed**
- **Risk of Collision**
- **Actions to Avoid Collision**
- **Narrow Channels**
- **Separation Schemes**

## **PART B** *(Cont'd)*

# **Steering and Sailing Rules**

- **Sailing Vessels**
- **Overtaking**
- **Head-On Situation**
- **Crossing Situation**
- **Action of Stand-on Vessel**
- **Responsibilities between Vessels**
- **Conduct in Restricted Visibility**

***What is that vessel doing?***

---

**PART C**

**Lights and Shapes**

**It identifies the intent and  
disposition of a vessel.**

**(Rules 21-31)**

# **PART C**

## **Lights and Shapes**

- **Definitions**
- **Visibility**
- **Power Driven Vessels Underway**
- **Towing and Pushing**
- **Sailing Vessels and 'Under Oar'**
- **Fishing Vessels**

# **PART C** *(cont'd)*

## **Lights and Shapes**

- **Vessels NUC and RAM**
- **Constrained by Draught**
- **Pilot Vessels**
- **Anchored and Aground**
- **Seaplanes**

***In bad visibility how do I know who is out there?***

---

## **PART D**

### **Sound and Light Signals**

**It identifies where other ships are in relation to you.**

**(Rules 32-37)**

## PART D

# Sound and Light Signals

- **Definitions**
- **Equipment for Sound Signals**
- **Maneuvering and Warning Signals**
- **Sound Signals in Restricted Vis**
- **Signals to Attract Attention**
- **Distress Signals**

## PART E

# Exemptions

These exemption's involve allowances made for very special circumstances and do not apply to us.

(Rules 38)

***What about special needs for  
Canadian mariners?***

---

## **PART F**

### **Additional Canadian Provisions**

**It identifies rules adjusted  
for our particular  
environment .**

**(Rules 39-46)**

## **PART F**

# **Additional Canadian Provisions**

- **Special Signals for Dangerous Goods**
- **Radar Reflectors**
- **Transponders**
- **Exploration Vessels**
- **Safety Zones around Exploration Vessels**

## **PART F** *(Cont'd)*

# **Additional Canadian Provisions**

- **ODAS**
- **Blue Flashing Lights**
- **Primary and Alternate Systems of Navigation Lights**

# SUMMARY

- Spend some time flipping through the publication
- Highlight key words and values
- Be prepared to make notes to yourself about the interpretation of any Rule

# Collision Regulations 101

# DEFINITIONS

*A MEANS TO MASTERING THE  
COLLISION REGULATIONS*

# The First Step...

... to understanding the regulations is learning the language.

E.g. there is a great deal of difference between

**'UNDERWAY' and 'MAKING WAY'**

# Terminology Woes

One of the biggest reasons we misunderstand the rules are

- Inability to understand what many words mean
- Difficult acronyms
- Confusing one term with another

# Take the Time

...to learn all of the definitions.

- Do not try to read a rule if it contains a word or phrase that **confuses** you
- Look it up before carrying on

Let's look at some of the more common difficult terms...

# Problem Terminology

- **Composite Unit**
- **Give-Way Vessel**
- **Risk of Collision**
- **Inshore Traffic Zone**
- **Notice to Mariners/Shipping**
- **ODAS**

# Problem Terminology

- **Route**
- **Routing System**
- **Separation Zone or Line**
- **Traffic Lane**
- **Power Driven Vessel**
- **Non-Displacement Mode**

# Defining Fishing Terms

- Trolling
- Shooting Her Nets
- Fast Upon An Obstruction
- Hampered
- Trawling
- Purse Seine

# Progressive Discovery

- As we work through the Rules more 'Terms' will be defined in their respective section.

I.E.

- Light Definitions
- Sound Definitions

# Reasoning Our Way...

...through the rules in the next series of lessons is important.

As we discuss each and every rule – think carefully why it exists in the first place.

The reason will help you remember the Rule itself.

# SUMMARY

- Not understanding the words leads to a misunderstanding of the **language**
- Highlight **key aspects** of each Rule
- Don't be **intimidated** by the language
- Don't hesitate to ask ... why?

# Collision Regulations 101

# GENERAL PART A

*A MEANS TO MASTERING THE  
COLLISION REGULATIONS*

# The Golden Rule...

... to understanding the Regulations is understanding your responsibility.

Despite being 'General' in nature Part A is the **most** important.

# Part A

## **Rule 1 – Application**

---

- Some governments may set **additional rules or modifications**
  - i.e.
    - Separation Schemes
    - Military Vessels
- Onus is on you to know **all** the Rules
- Applies to **All Vessels ~ All Waters**

# Part A

## **Rule 1 – Application**

---

- Any exceptions or additions cannot **interfere** with effectiveness of any Rule

i.e.

- » Ability to see navigational lights
- » Ability to hear signals
- » Restrict access to lights and signalling devices

# Part A

## **Rule 2** – *Responsibility*

---

- If you fail to comply with all of these Rules you will be held **negligent**
- You must **consider** all dangers of navigation and collision
- Understand the **limits** of you and your vessel

# Part A

## **Rule 3 – *General Definitions***

---

- **Sailing Vessel**
- **Vessel Engaged in Fishing**
- **Vessel Not Under Command**
- **Underway ~ Making Way**
- **Vessel In Sight**
- **Vessel Constrained by Her Draught**

# Part A

## **Rule 3** – *General Definitions*

---

### **Restricted in Ability to Maneuver**

- **Laying or servicing cable**
- **Dredging or surveying**
- **Transferring persons or cargo**
- **Launching air or water craft**
- **Mine-clearance**
- **Towing Operations**

# Part A

## *Understanding the Restriction*

- Vessels can be restricted in maneuverability in **different** ways
- Knowing this will help you better **understand** what lights/shapes they will display

*i.e. a vessel constrained by her draught is also RAM*

# SUMMARY

**Be Aware of what is going  
on AT ALL TIMES!**

- **As Master or Look-out you have responsibilities**
- **Think about what each term means to the operation/**disposition** of a vessel**

# Collision Regulations 101

# STEERING & SAILING PART B

*A MEANS TO MASTERING THE  
COLLISION REGULATIONS*

# Operating Safely...

**... means knowing how fast to go, where to steer and what to watch out for.**

**The Rules in this Part informs everyone of each other's actions.**

# Part B

## **Rule 4** – *Application*

---

Rules 4 thru 10 apply in  
any Condition of **Visibility**

**No Exceptions.**

# Part B

## Rule 5 – *Look-Out*

---

- **Very Important**
- **Must have one at all times**
- **Must employ look-out by sight and hearing**

### Sight

- 1) 360°
- 2) Lights
- 3) Sea State/Wakes
- 4) radar

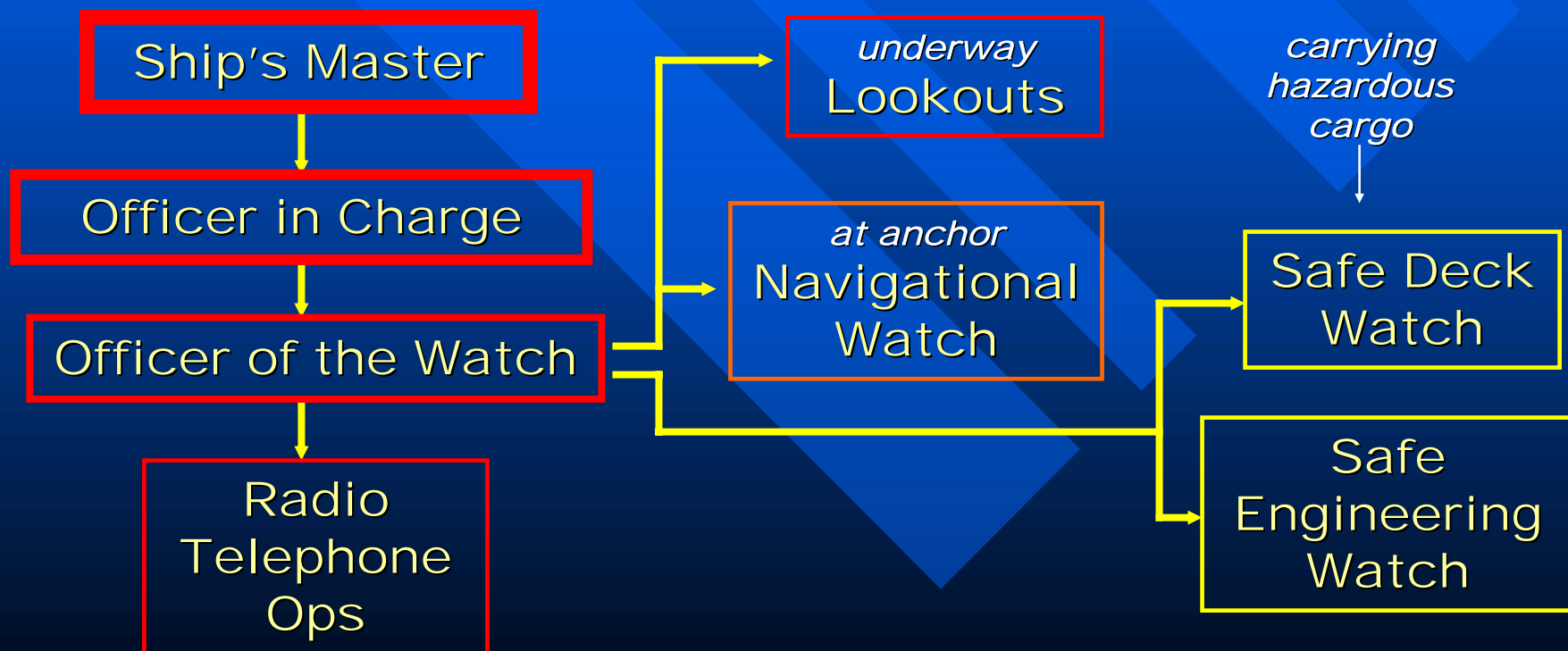
### Hearing

- 1) Radio
- 2) Engines
- 3) Fog Signals
- 4) Whistles, Bells, Horns

# Part B

## Rule 5 – Look-Out

- Code of Nautical Procedures and Practices – TP1018



# Part B

## Rule 6 – *Safe Speed*

---

- Ability to **stop** appropriately
- Ability to take early effective **action**
- Pending prevailing **conditions**
- **Radar Limitations**
- **Property Damage**
  - Visibility
  - Traffic density
  - Vessel maneuverability
  - Background Light
  - Sea and Wind State
  - Vessel Draught

# Part B

## **Rule 7 – Risk of Collision**

---

- Use **all available means** to determine risk
- Proper use of **radar** – low range
- Consider **scanty** radar readings
- Take compass **bearings** of vessels
- Risk always exists

THINK!

# Part B

## **Rule 8** – *Action to Avoid Collision*

---

- Positive and ample time
- Alterations of course obvious
- No small changes
- Pass at safe distances
- Communicate actions
- Be prepared to slow or stop at any time

# Part B

## **Rule 9 – *Narrow Channels***

---



- Keep to the **outer limits**
- 20 Meters of less – do not impede!
- Fishing vessels – do not impede!
- Careful **crossing**
- Avoid **anchoring**
- Use the **appropriate sound signals** when
  - Overtaking
  - Nearing a bend
  - Overtaking

# Part B

## **Rule 9 – *Narrow Channels***

---

Two major Canadian modifications to Rule 9 consider...

- Vessels towing partly submerged objects
- Vessels proceeding with the current as stand-on vessels
- Signals for approaching vessels



# Part B



## **Rule 10** – *Separation Schemes*

---

- Schemes shall not interfere with any Rule
- Entering and leaving schemes
- Inshore traffic zones
- **Crossing** schemes
- **Avoid anchoring near exits**
- **Fishing Vessels**
- Vessels **RAM** and working vessels

# Part B

## **Rule 11** – *Application*

**Rules 11 thru 18 apply  
to vessels in sight of  
one another.**

# Part B

## **Rule 12 – *Sailing Vessels***

---

### ■ Order of Stand On Vessel

Stand-On Vessel

Wind on different sides

*Wind on starboard side*

Wind on same side

*Leeward vessel*

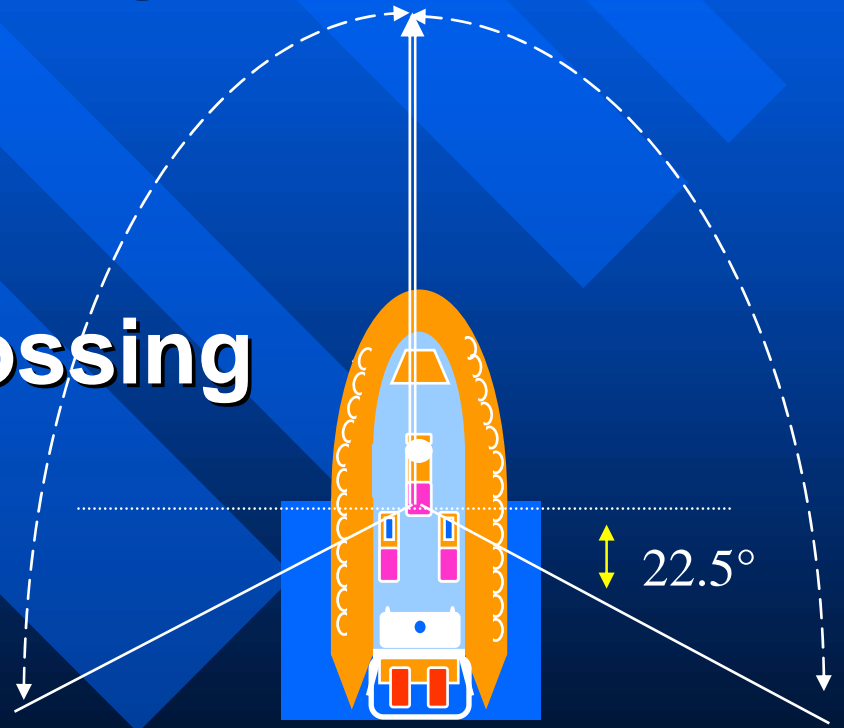
Unknown which side the wind is blowing on approaching vessel

*Approaching Vessel*

# Part B

## Rule 13 – Overtaking

- Any vessel overtaking must keep out of the way
- Signal intentions
- Overtaking vs. Crossing
  - Day
  - Night



# Part B

## **Rule 14** – *Head-On Situation*


---

- Alter course to **starboard**
- By **Day** – corresponding aspect
- By **Night** – both sidelights and masthead lights nearly in line
- Any doubt – act accordingly!

# Part B

## **Rule 15** – *Crossing Situation*

---

- The vessel which has the other to her starboard shall give way
- By Night –
  - RED** means STOP
  - GREEN** Means GO
- Does not apply in a river! 

# Part B

## **Rule 16** – *Action By Give Way Vessel*

---

**If you are the give way vessel...  
take early and substantial action.**

- **Don't confuse the stand on vessel.**

# Part B

## **Rule 17** – *Action by the Stand-On Vessel*

---

- **Maintain** your course and speed
- You may **take action** to avoid collision if necessary
- Still **responsible** to avoid collision
- Don't alter course to **port!**

# Part B

## **Rule 18** – *Responsibility Between Vessels*

---

- **Order of Stand On Priority – WHY?**
- **Special considerations for draught limitations**
- **Seaplanes**
- **Sailing vessels under power**

# Part B

## **Rule 19** – *Conduct of Vessels in Restricted Visibility*

- Must have engines ready
- Due regard to prevailing conditions
- **AVOID**
  - Altering to Port for a vessel forward
  - Altering towards a vessel abeam or abaft
- Fast enough for steerage

# SUMMARY

- Understanding different vessels **limitations** provides value to learning how to **recognize** them
- Know each vessels **disposition**
- Know how to **react** confidently
- **Communicate**

# Collision Regulations 101

# LIGHTS & SHAPES RULES

*A MEANS TO MASTERING THE  
COLLISION REGULATIONS*

# Learn the Language...

... of lights and shapes and understand what is out there and how it effects you.

The code of lights and shapes actually is based on logic. Learning that logic is the key to learning the language.



# Part C

## **Rule 20** – *application*

---

- Rules in this part (20-31) applies in **all weather**
- Lights on **sunset** to **sunrise**, and **restricted** visibility
- Lights shall not **interfere** or be confused with any other lights or the look-out
- **Shapes** will be displayed during **daylight** hours

## PART C

# Learning Lights and Shapes

*Learning lights and shapes is like learning the words that make up a language.*

*The trick is to build your vocabulary!*

***Reference the lights and shapes programs for more detail.***

*TIDBIT: to properly ascertain lights – developing 'night eyes' is very important.*

# SUMMARY

- Spend some time flipping through the publication
- Highlight key words and values
- Be prepared to make notes to yourself about the interpretation of any Rule

# Collision Regulations 101

# SOUNDS SIGNALS

*A MEANS TO MASTERING THE  
COLLISION REGULATIONS*

# Sounds

... like lights and shapes can be read much like a language.

***In bad visibility how do I know who is out there?***

---

## **PART D**

### **Sound and Light Signals**

**It identifies where other ships are in relation to you.**

**(Rules 32-37)**

# Gongs, Bells and Whistles

Many large vessels will emit 3 different types of sounds;

- Bells
- Gongs
- Whistles

The secret is that each sound must be distinct in nature

# Whistles

A Whistle means any sound signaling appliance capable of producing the prescribed blasts and which complies with the specifications in Annex III of the Regs.



Rule 32 – *Definitions*

# Blasts

A **short** blast means a a  
blast of a bout a  
second

A **prolonged** blast means  
four to six seconds in  
duration



**Rule 32** – *Definitions*

# Part D

## **Rule 33** – *Equipment to Make Sound Signals*

---

**Vessels under 12 meters require some means of making a sound such as an air horn.**

**Vessels 12 to 100 meters require a bell and a whistle.**

**Vessels over 100 meters require a bell, a whistle AND a gong.**

# **Rule 34 (a)**

---

**Short blasts that will indicate  
to which course you altering  
your vessel.**

***Refer to sound Cheat Sheet***

# **Rule 34 (b)**

---

**Similar light flashes using all-around white lights**

***Refer to sound Cheat Sheet***

# **Rule 34 (c)**

---

**Indicates vessel overtaking  
and to which side.**

***Refer to sound Cheat Sheet***

# **Rule 34 (d)**

---

**Indicates vessel signaling  
danger.**

**Also indicates when a second  
vessel is in doubt as to  
intention**

# **Rule 34 (e)**

---

**Indicates vessel approaching  
a bend or where another  
might be obscured**

# **Rule 34 (f)**

---

**For vessels with whistles over 100 meters apart, only one whistle shall be used.**

# **Rule 35 (a)**

---

**Power Driven Vessels making  
way.**

***Refer to sound Cheat Sheet***

# **Rule 35 (b)**

---

**Power Driven Vessels NOT  
making way.**

***Refer to sound Cheat Sheet***

# **Rule 35 (c) – (d)**

---

**Vessels restricted in  
Maneuverability, Fishing,  
Towing, Dredgers and other  
working vessels.**

***Refer to sound Cheat Sheet***

# **Rule 35 (e)**

---

**Manned Tow - Response**

***Refer to sound Cheat Sheet***

# **Rule 35 (g)**

---

**These are sound signals for  
vessels at **Anchor****

***Refer to sound Cheat Sheet***

# **Rule 35 (h)**

---

**These are sound signals for  
vessels **Aground****

***Refer to sound Cheat Sheet***

# **Rule 35 (j)**

---

**For Pilot Vessels both  
making and not making way.**

# Rule 36

---

**Signals to attract attention.**

**By making any light or sound signal that cannot be mistaken for other signals authorized in the rules.**

# Rule 37

---

## Distress Signals.

Reference the “Distress Signals” section in the Regulations and be familiar with them.

# Collision Regulations 101

**FINAL**  
WORDS

*A MEANS TO MASTERING THE  
COLLISION REGULATIONS*

**Keep in mind...**

**... that as long as you  
understand the Rules  
your will remember the  
rules.**

# Keeping Sharp

- **Be sure to review them on a regular basis.**
- **Always keep a copy of the regulations along with Chart One in your Wheel House**

# Safe Waters

- **C**ommon Sense
- **A**wareness
- **R**esponsibility
- **E**ducation
- **F**
- **U**nderstand the Rules
- **L**imit Recognition

...**Careful Sailing**