

Proposal : relocation to minimize damage from container loss

Team Crescendo

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Part 1

Background



What is the “Container lost at sea”?



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Top causes of container at sea

1

Nature Disasters

2

Large Ships

3

Unsafely Loaded containers

SOLAS Annex V

REGULATION 31 - Danger messages

- 1 The master of every ship which meets with dangerous ice, a dangerous derelict, or any other direct danger to navigation, or a tropical storm, or encounters sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures, or winds of force 10 or above on the Beaufort scale for which no storm warning has been received, is bound to communicate the information by all means at his disposal to ships in the vicinity, and also to the competent authorities. The form in which the information is sent is not obligatory. It may be transmitted either in plain

language (preferably English) or by means of the International Code of Signals.

- 2 Each Contracting Government will take all steps necessary to ensure that when intelligence of any of the dangers specified in paragraph 1 is received, it will be promptly brought to the knowledge of those concerned and communicated to other interested Governments.
- 3 The transmission of messages respecting the dangers specified is free of cost to the ships concerned.
- 4 All radio messages issued under paragraph 1 shall be preceded by the safety signal, using the procedure as prescribed by the Radio Regulations as defined in regulation IV/2.

MARPOL Article 8

ARTICLE 8

Reports on Incidents Involving Harmful Substances

- (1) A report of an incident shall be made without delay to the fullest extent possible in accordance with the provisions of Protocol I to the present Convention.
- (2) Each Party to the Convention shall:
 - (a) make all arrangements necessary for an appropriate officer or agency to receive and process all reports on incidents; and
 - (b) notify the Organization with complete details of such arrangements for circulation to other Parties and Member States of the Organization.
- (3) Whenever a Party receives a report under the provisions of the present Article, that Party shall relay the report without delay to:
 - (a) the Administration of the ship involved; and
 - (b) any other State which may be affected.
- (4) Each Party to the Convention undertakes to issue instructions to its maritime inspection vessels and aircraft and to other appropriate services, to report to its authorities any incident referred to in Protocol I to the present Convention. That Party shall, if it considers it appropriate, report accordingly to the Organization and to any other party concerned.

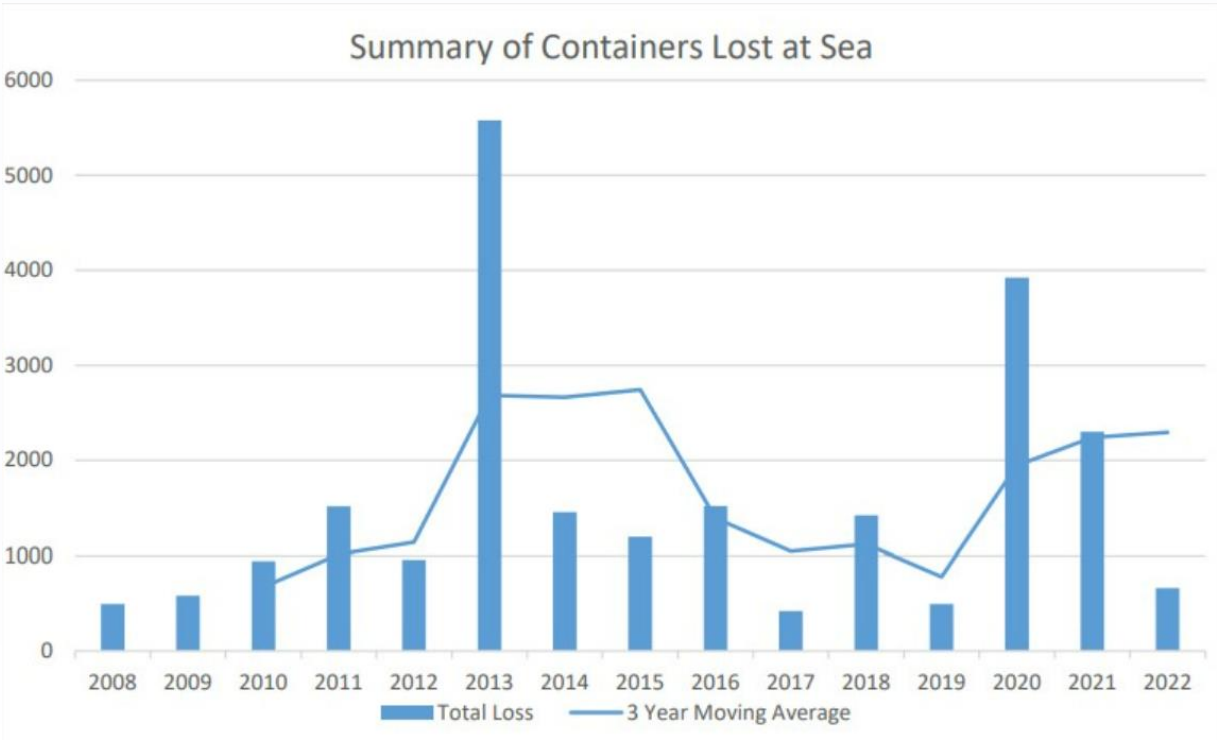
WSC(Would Shipping Council)

2017 ~ 2019 Number of lost containers : 779



Approximately 400% increase

2020 ~ 2021 Number of lost containers : 3133



Process of IMO



SD 6 = Ensure regulatory effectiveness

Highlight of Maritime Safety Committee (MSC 107) 31 May-9 June 2023

6. Mandatory reporting of lost containers – draft SOLAS amendments

The master of every ship involved in the loss of freight container(s) to communicate the particulars of such an incident to ships in the vicinity, to the nearest coastal State, and also to the flag State which would be required to report the incident to IMO.

The SOLAS Container Weight Verification Requirement January 2015

The IMO has amended the Safety of Life at Sea Convention (SOLAS) to require, as a condition for loading a packed container onto a ship for export, that the container has a verified weight. The shipper is responsible for the verification of the packed container's weight.

This requirement became legally effective on July 1, 2016. After that date, it is a violation of SOLAS to load a packed container on to a vessel if the vessel operator and marine terminal operator do not have a verified container weight.

Our destination: “FPS” web

F : Fast Reporting System

P : Preventing incidents

S : Solution to minimize damage

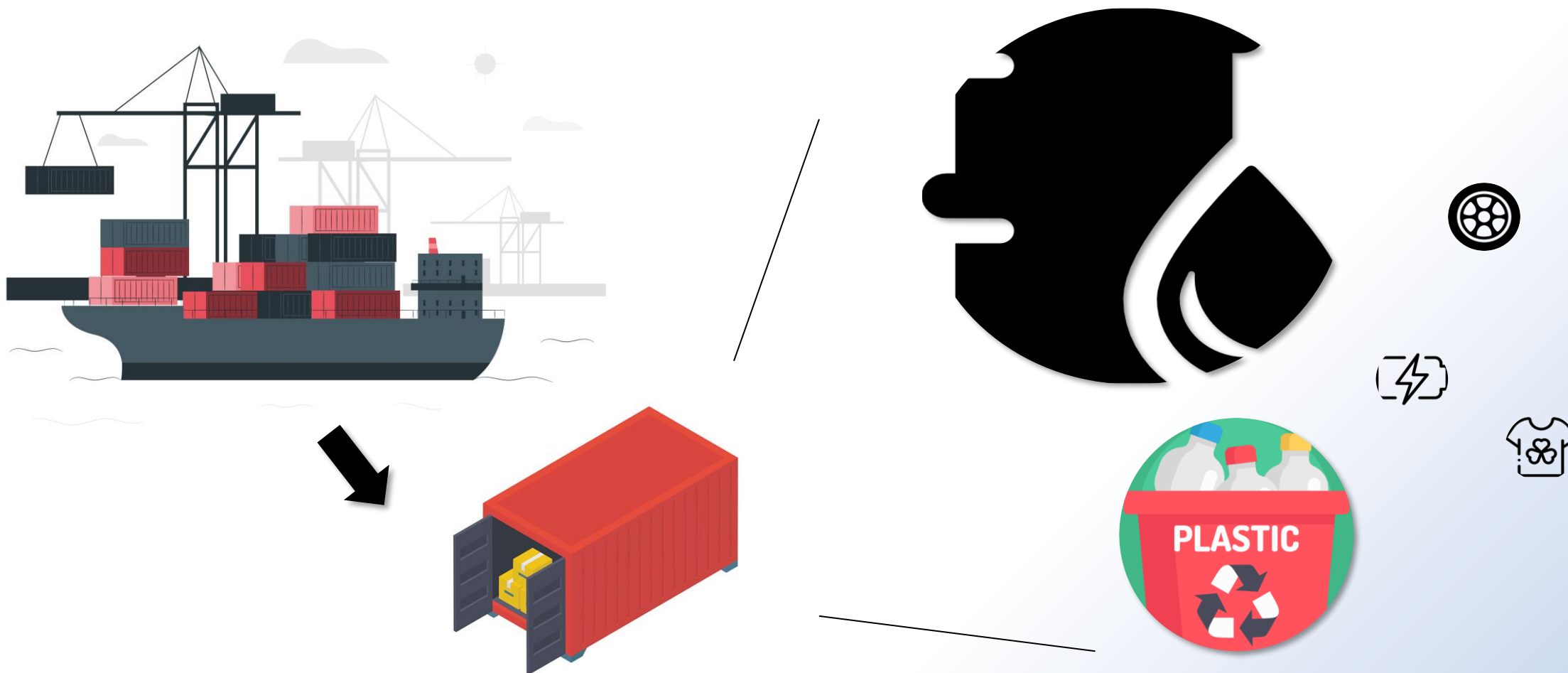
Part 2 Problem



Main issue: Environmental pollution

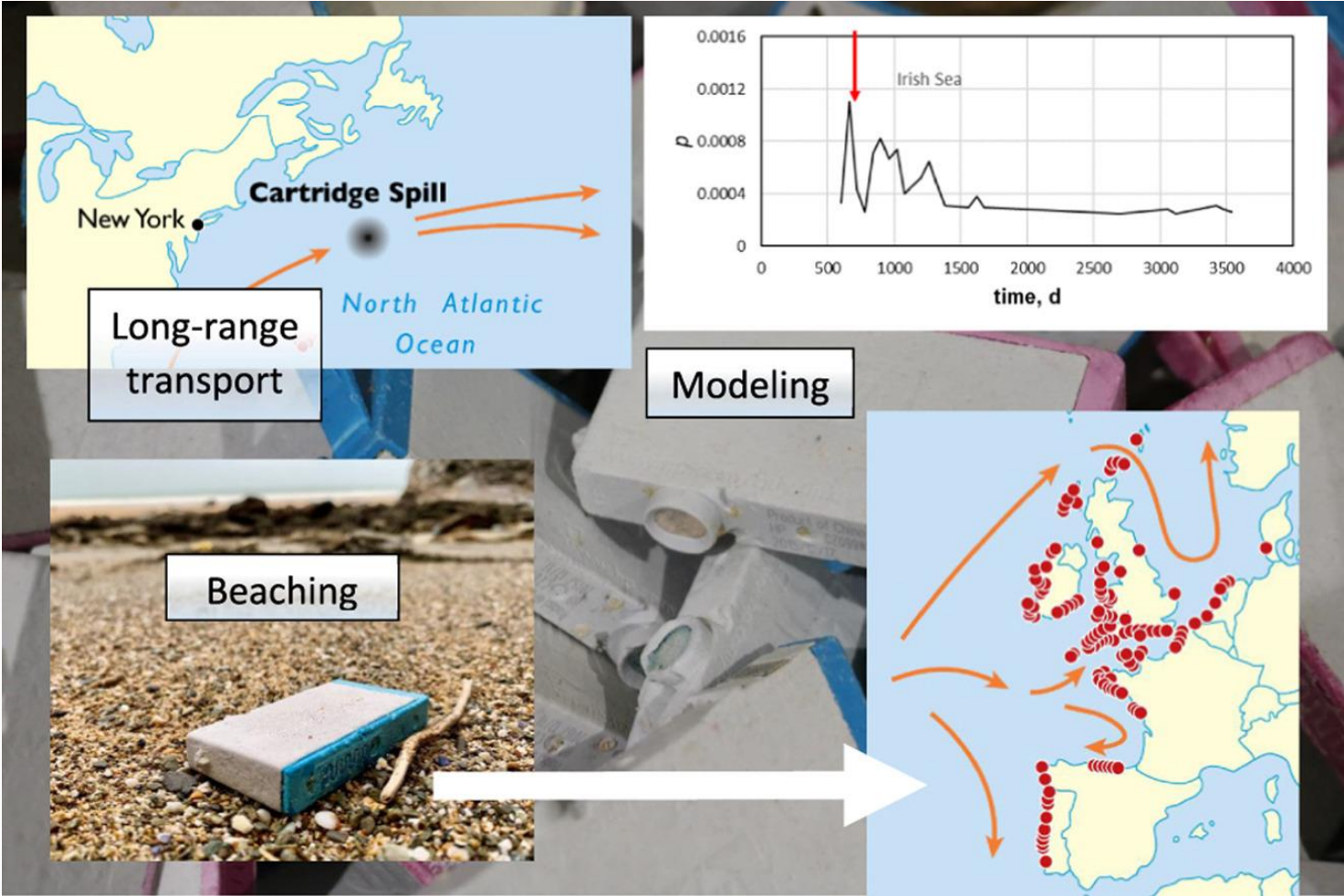
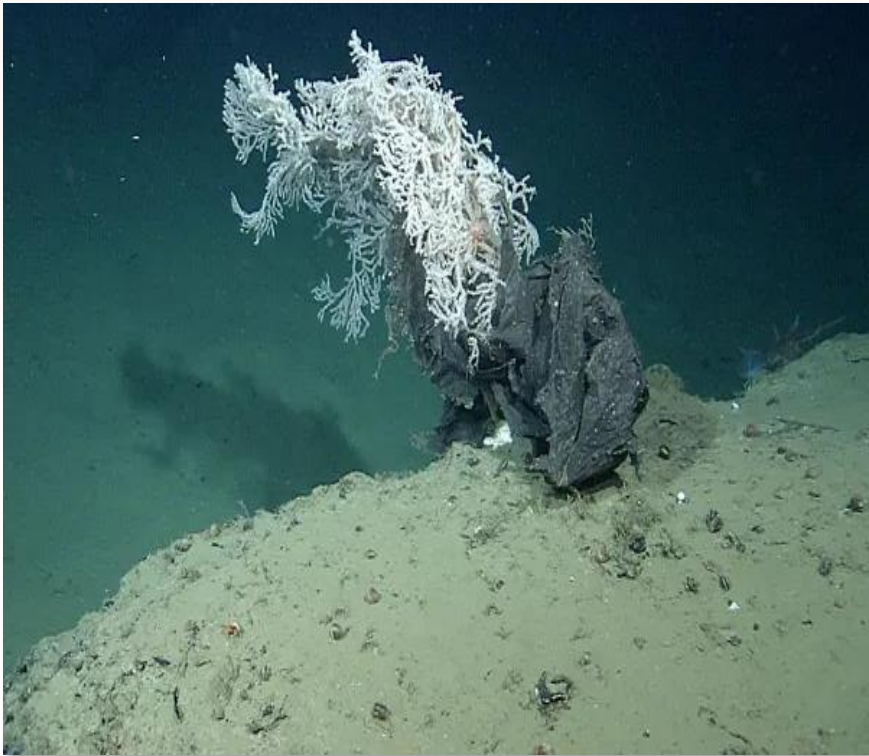


Main issue: Environmental pollution



Risk factors for lost: Plastic

1. Plastic



2. HNS(Hazardous and Noxious Substances)



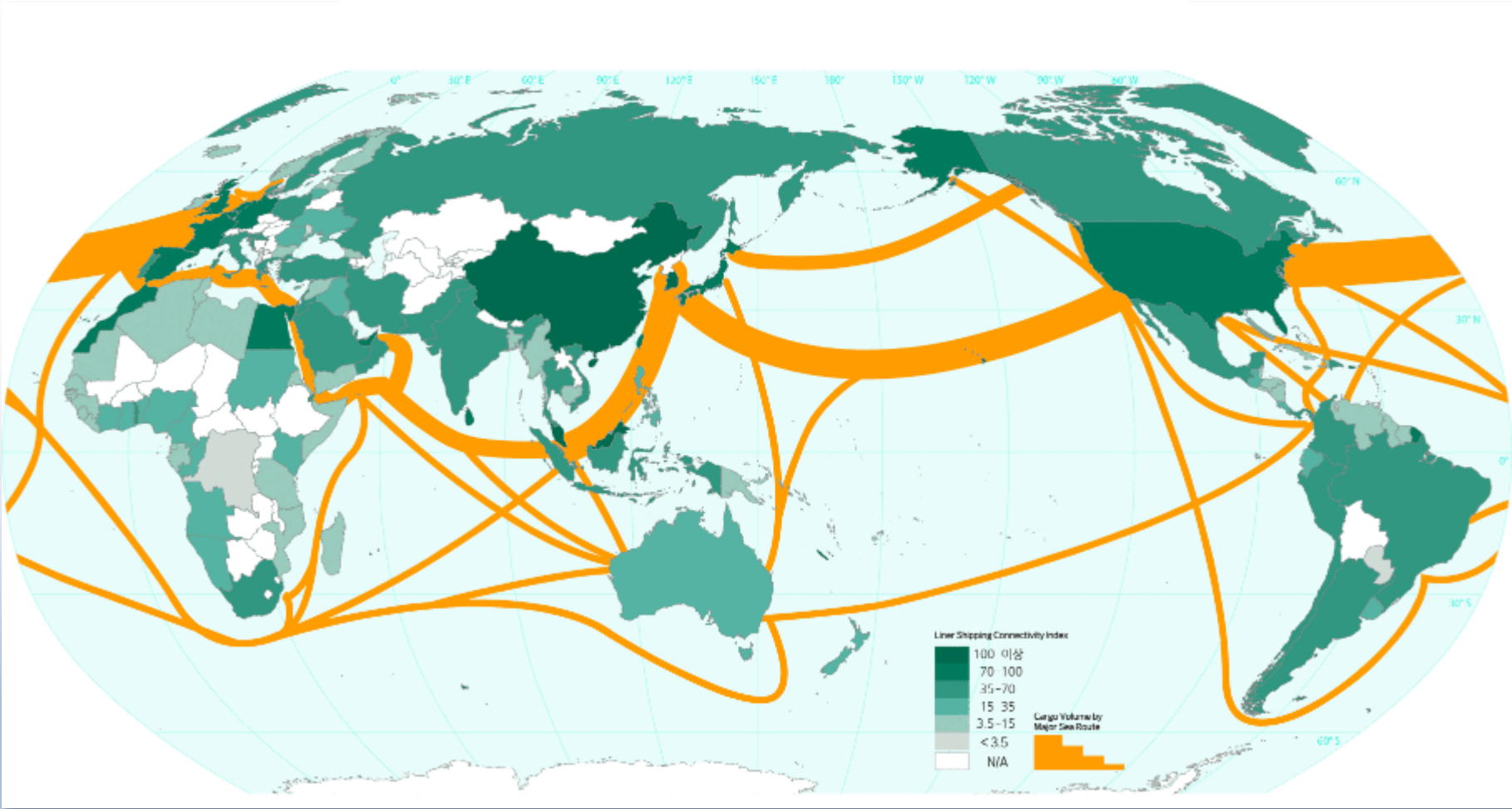
Number of lost containers in “Dyros ship” = 90

10%

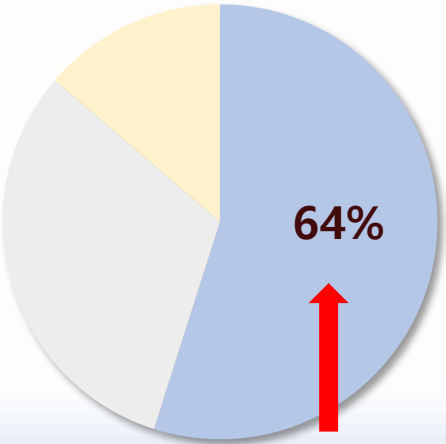
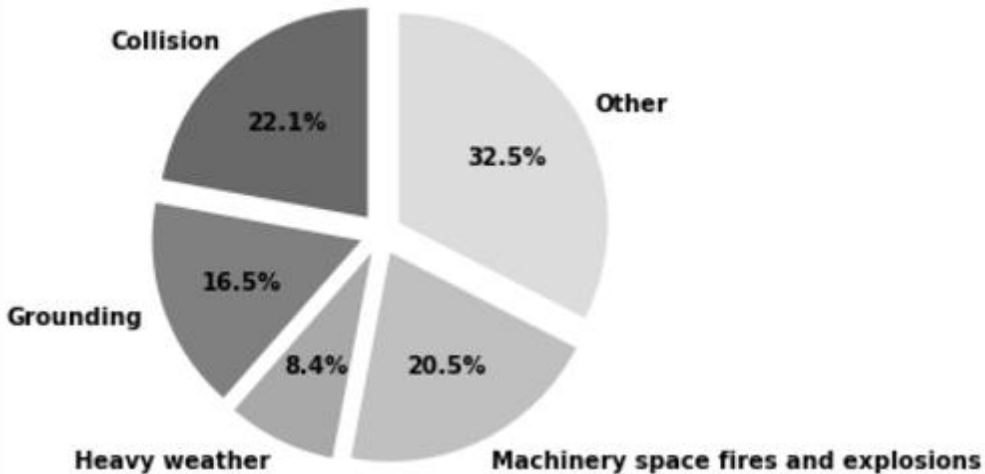


Percentage of HNS container

Main Issue: Secondary Ship Collision

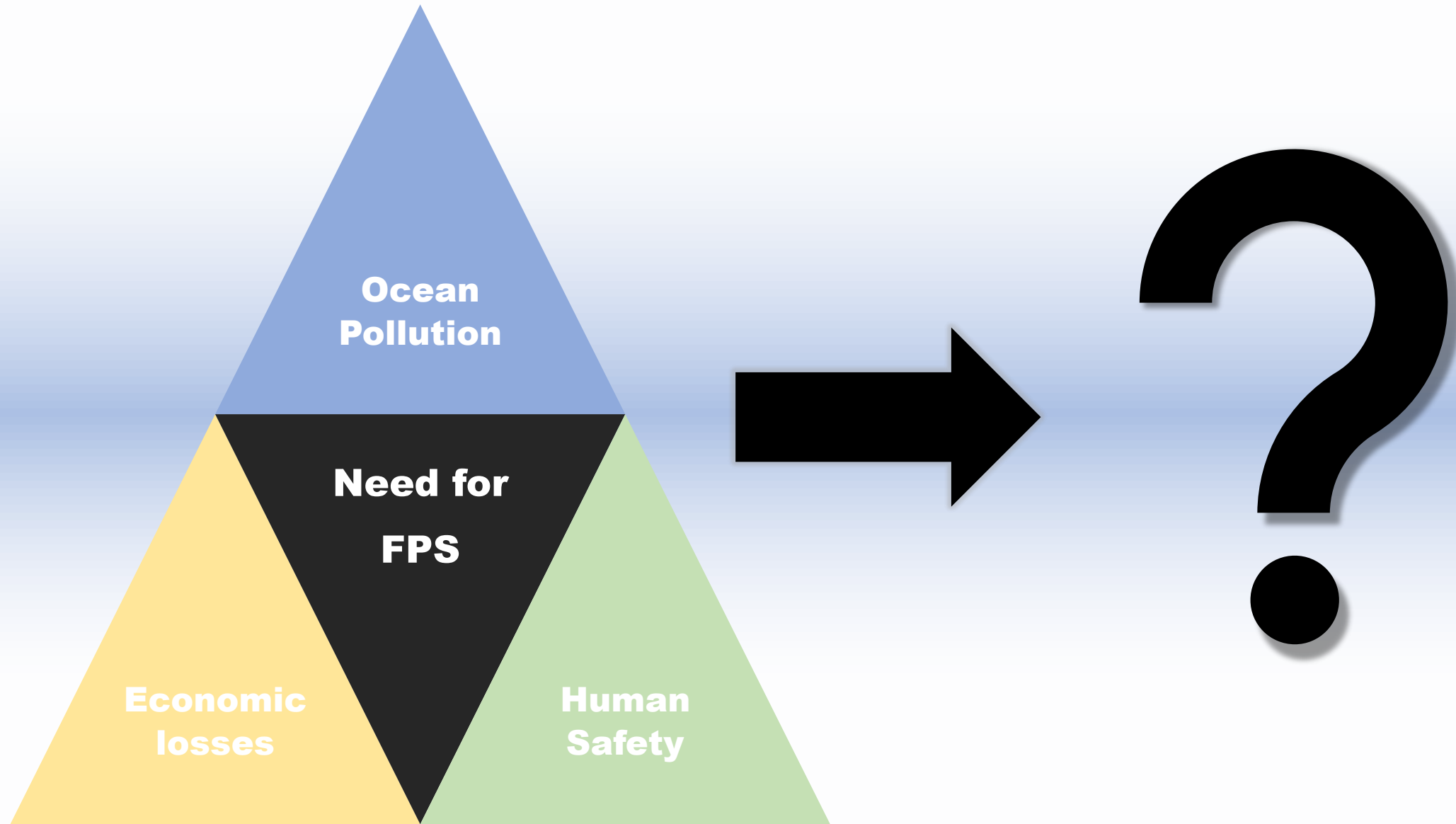


Risk of secondary collision

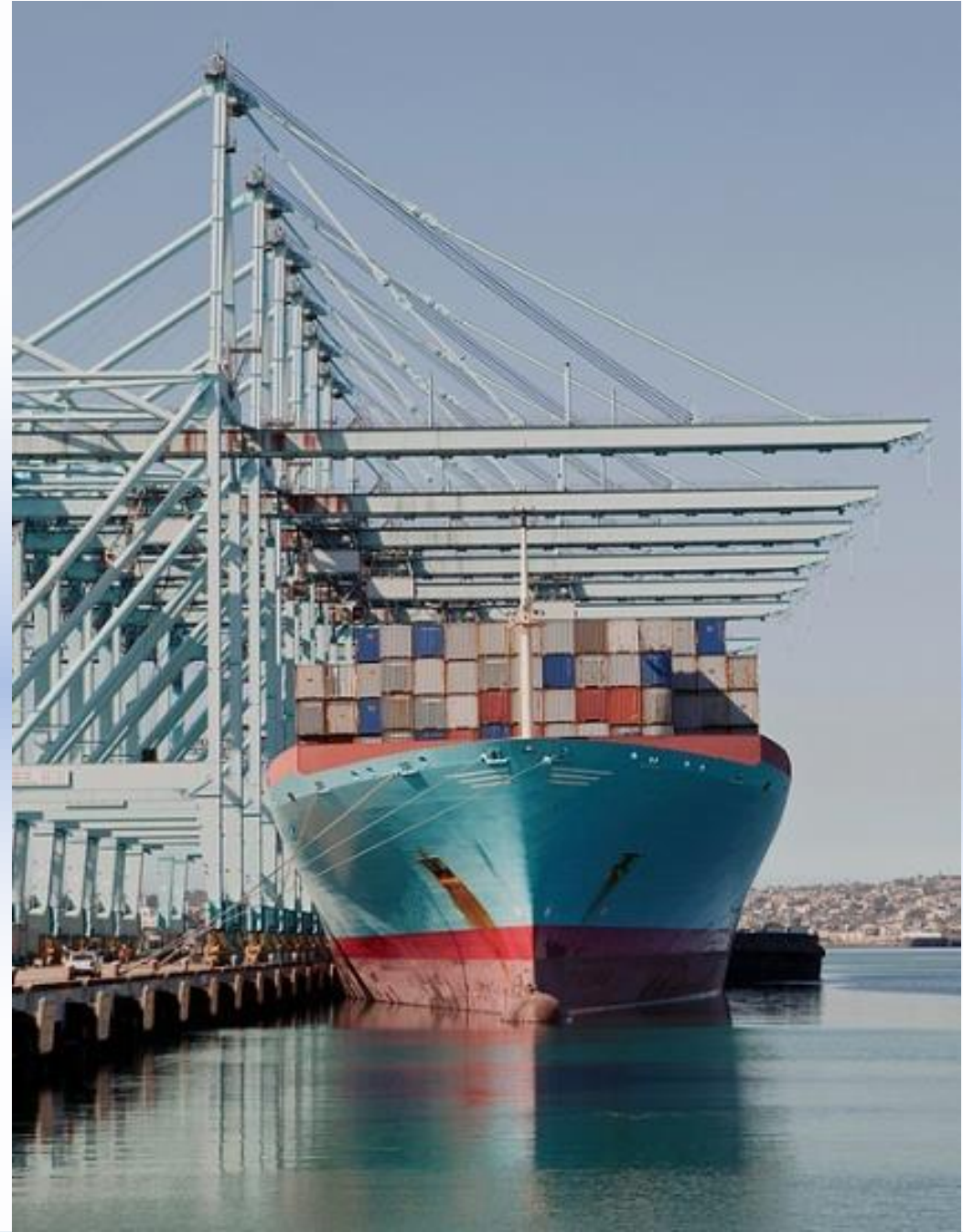


Catastrophic Loss

How to fix the problem?



Part 3 Solution



Solution of container lost at sea



PART 7

PROVISIONS CONCERNING
TRANSPORT OPERATIONS



Part A : Mandatory requirements relating to the provisions of Chapter 11-2 of the SOLAS Convention

Part B : Guide to the provisions of Chapter 11-2 of the SOLAS Convention and part A, which are essential considerations when applying the relevant guidelines

Solution of container lost at sea



Inevitable Container Loss



+

container relocation

Minimize Fatal Accident Damage

2. Special shipping area suggestion

Inevitable area of risk of container loss



Acceptable containers in special areas



Minimize accident damage

Solas chapter VI Carriage of cargoes and oil fuels Part A

Regulation 5-3

Define loading zones to prevent container loss.

1. Subject to exceptions, all container ships shall have defined on-deck loading zones and prioritized cargo loading on a zonal basis to minimize damage in the event of container loss.

- Inevitable zone

The outermost edge of the loading zone, meaning the top of the foreign zone, is the first hazard zone, which prohibits the direct loading of floating potential and semi-environmental containers.

1. Potential floating objects: empty containers, floating substances, etc. that have the risk of collision with the lost ship and other ships on the course line in the event of an accident.

2. Anti-environmental containers: Containers including those with a high risk of causing temporary or permanent environmental pollution in the event of an accident.

- Potential zone

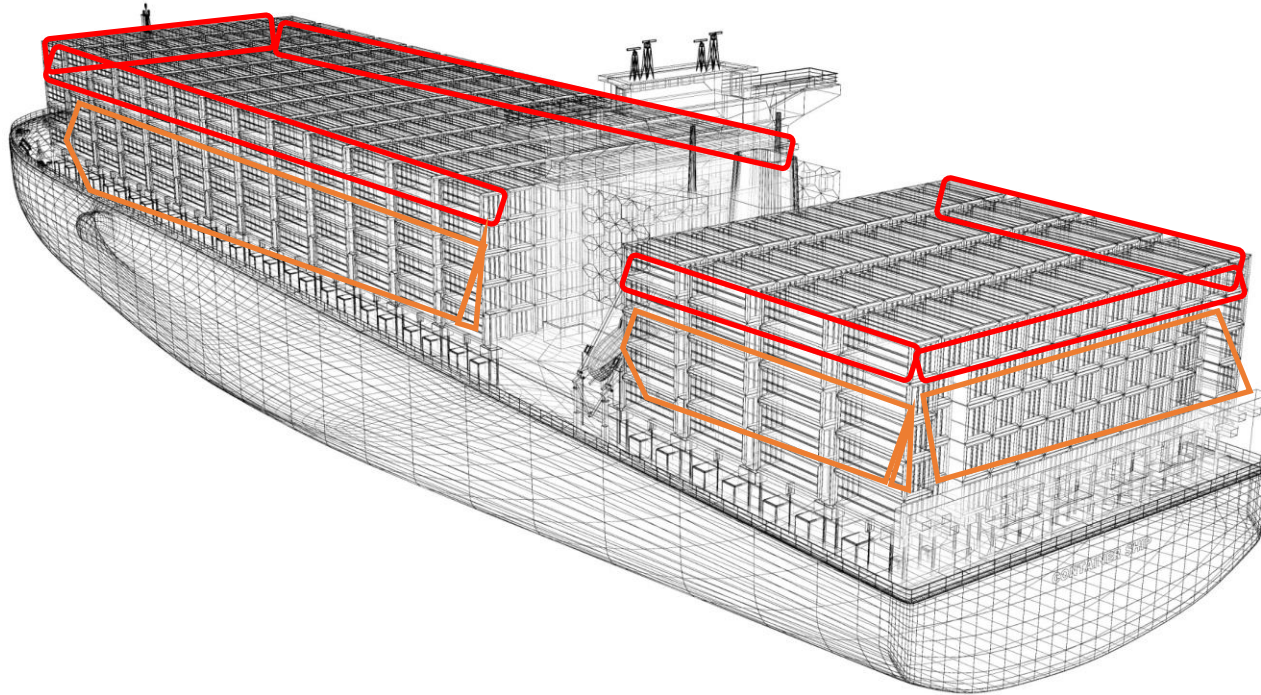
This is the second hazardous zone outside of the inevitable zone, where there are no loading prohibitions, but it is advisable to avoid loading floating potential and anti-environment objects as defined in the inevitable zone.

- General zone

This is the third risk zone after the inevitable and potential zones, and has no regulations.

Solution of container lost at sea

2. Special shipping area suggestion



PARAGRAPH 4

Inevitable ZONE

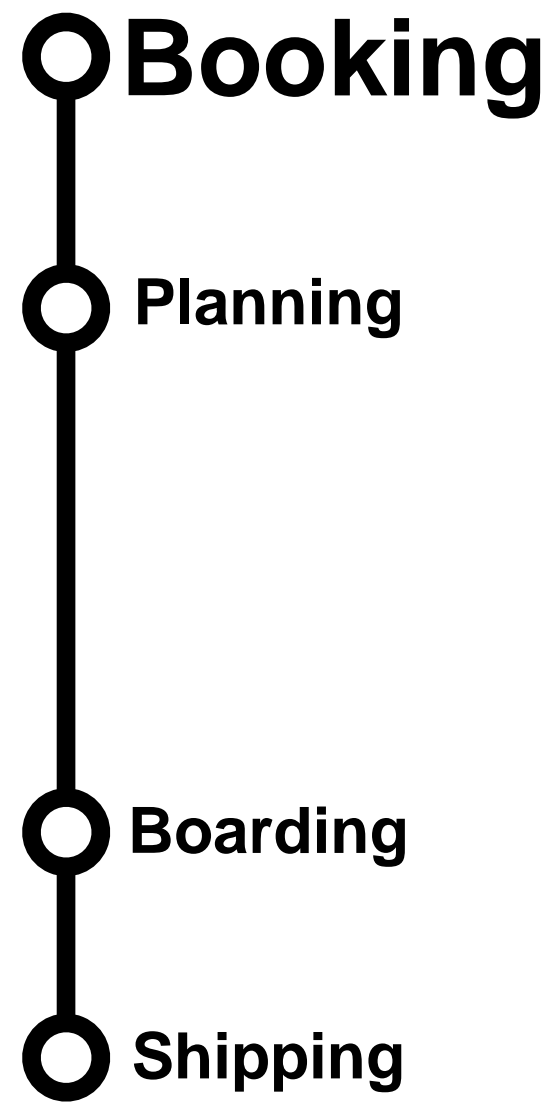
- It is the most dangerous area for accidents to occur.
- Therefore, regulation prohibit floating debris for safety and prohibit the loading of anti-environmental materials to prevent pollution.

POTENTIAL ZONE

- With the exception of the inevitable zone, this zone has a high potential for loss..
- While not a prohibition, it is recommended in 5-3 to exclude those defined by the inevitable zone.

GENERAL ZONE

- General zone, which allows for safe shipping in accordance with existing regulations.



Shipping Request					
1. Seller Name Address Tel Fax		2. Buyer Name Address Tel Fax			
3. Consignee		4. Notify			
5. Vessel/flight and Departure Date <input type="checkbox"/> Vessel <input type="checkbox"/> flight Departure Date		6. L/C No.			
7. Loading Port		8. Terms of delivery and payment Delivery : ex) FOB,CIF Payment : ex) L/C, T/T			
9. Discharging Port		10. Cargo type <input type="checkbox"/> Container <input type="checkbox"/> LCL <input type="checkbox"/> BULK			
11. Pick up date of Cargo date: Tel : P.I.C :					
12. Shipping Marks	13. No & kind of packages	14. Description	15. Measurement (CBM)	16. Net weight (kg)	17. Gross weight (kg)
18. Area of Container					

**Mandatory
labeling of areas
by type**

Solution of container lost at sea

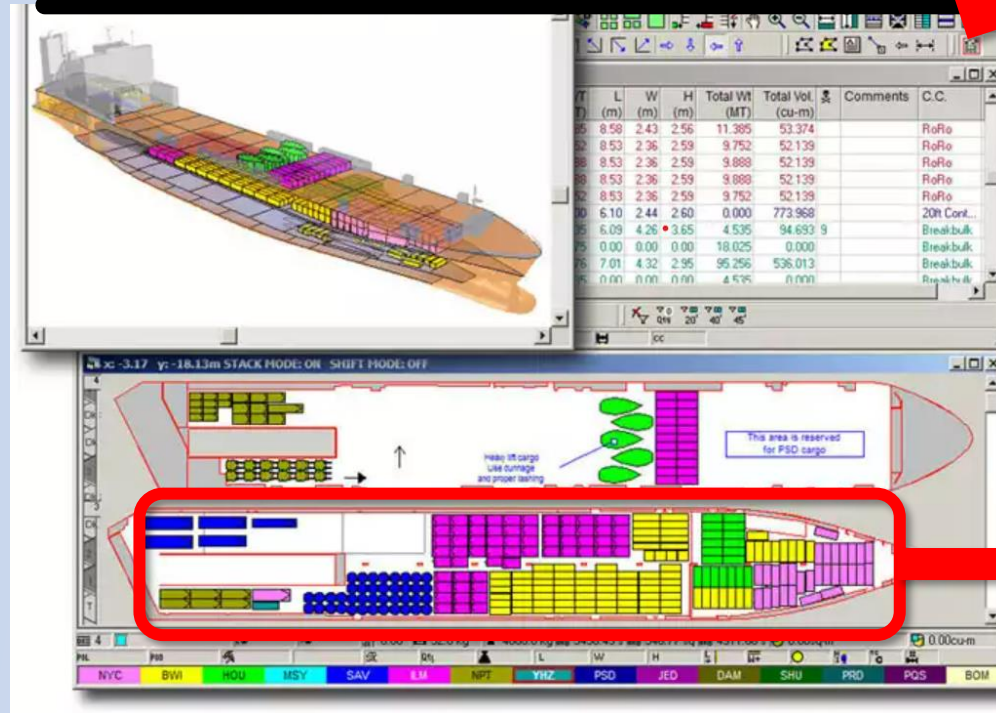
○ Booking

○ Planning

○ Boarding

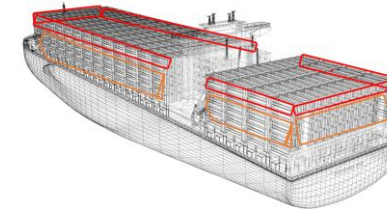
○ Shipping

Comprehensive documentation



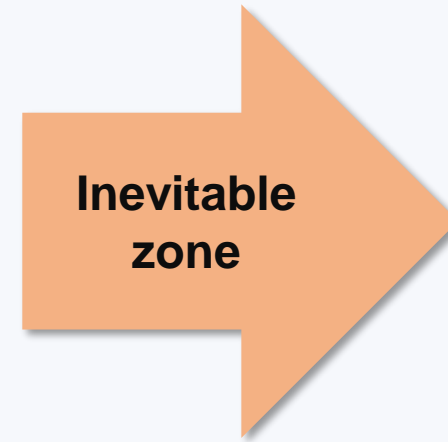
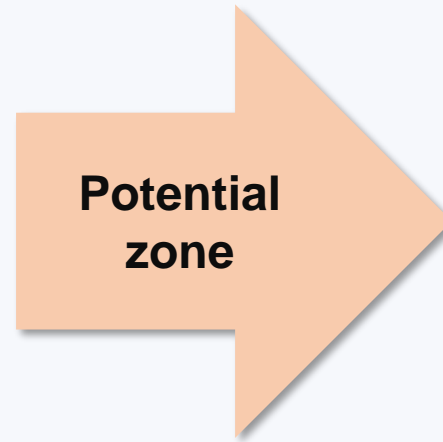
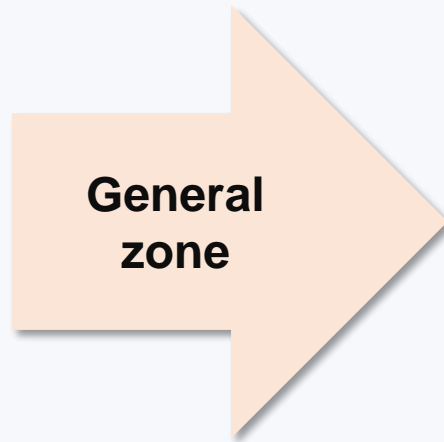
Label of areas by type

Subdivide zones by SOLAS



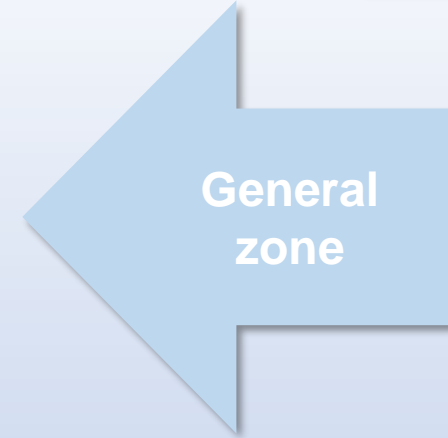
If the proposed regulations are not met, the shipper must prove an exception through comprehensive documentation.

Solution of container lost at sea



Size of risk

Loading steps



Conclusion

Inevitable container loss



Our Proposal:
SOLAS chapter VI Part A Regulation 5.3



Add new provision to shipping request

Minimize fatal accident damage by
“CONTAINER RELOCATION”



Our destination : Solving the loss problem by achieving the “FPS” requirement

Q & A



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