Introduction to the Ballast Water Management Convention

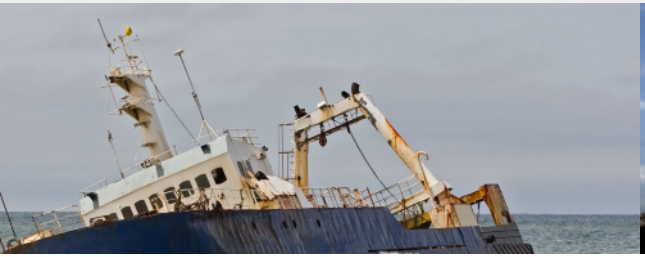
Overview & the Exemptions Process

Megan Jensen
Marine Biosafety
Marine Environment Division, IMO

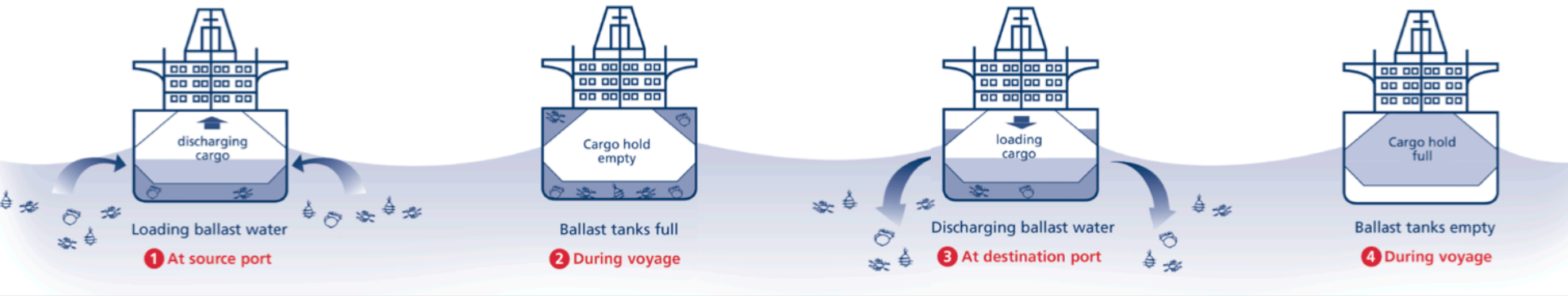
BWM Webinar – 23 September 2020

Outline

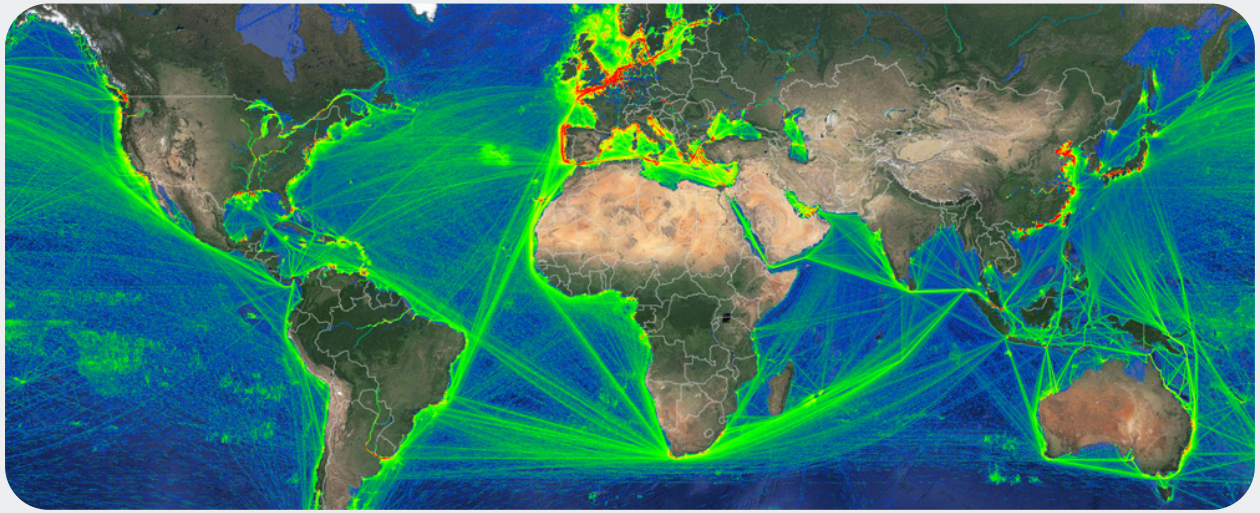
- **Overview of BWM Convention**
- Introduction to exemptions
- Principles of risk assessment for exemptions
- Same risk area (SRA) concept



Why do we need the BWM Convention?

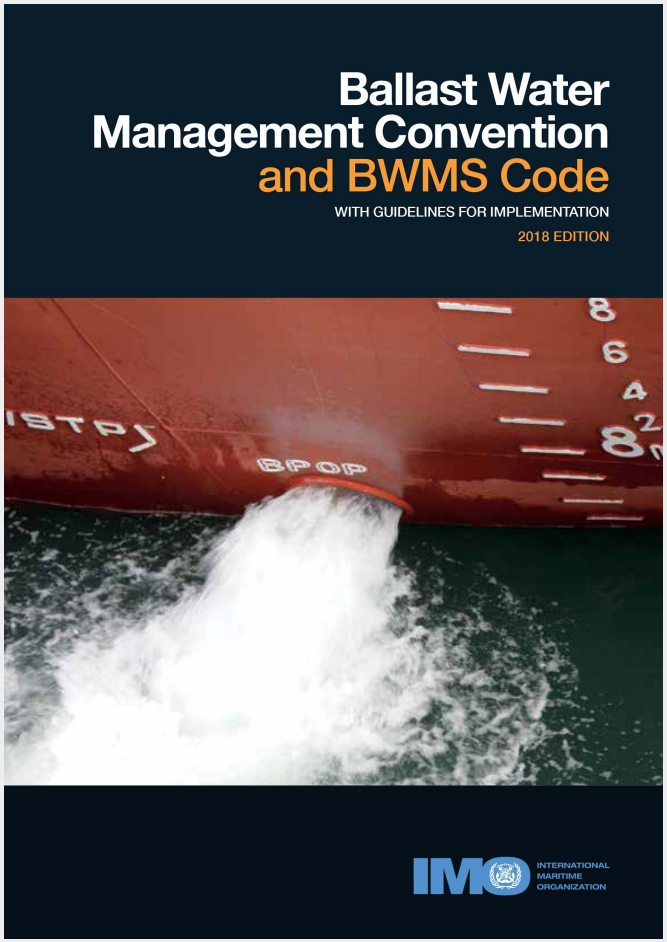


Ballast water is necessary for safe shipping



Shipping breaks natural barriers for species dispersal

The Ballast Water Management Convention



The discharge of ballast water into the sea must be managed according to the provisions of the BWM Convention to reduce the risk of transferring invasive aquatic species

- Adopted 13 February 2004 after several years of negotiation
- The Convention entered into force on 8 September 2017
- Current ratification status: 85 States and 91.11% of world gross tonnage

BWM Convention: Management Options

1. Ballast Water **exchange** to meet "D-1" Standard
   - 200 or 50 nm from land, 200 m deep

     or
   - Designated ballast water exchange area
   - ➢ Interim standard

2. Ballast Water **discharge must** meet "D-2" Standard
   - Discharged ballast water must contain fewer viable organisms than specified in the *ballast water performance standard* (regulation D-2)
   - ➢ Permanent standard

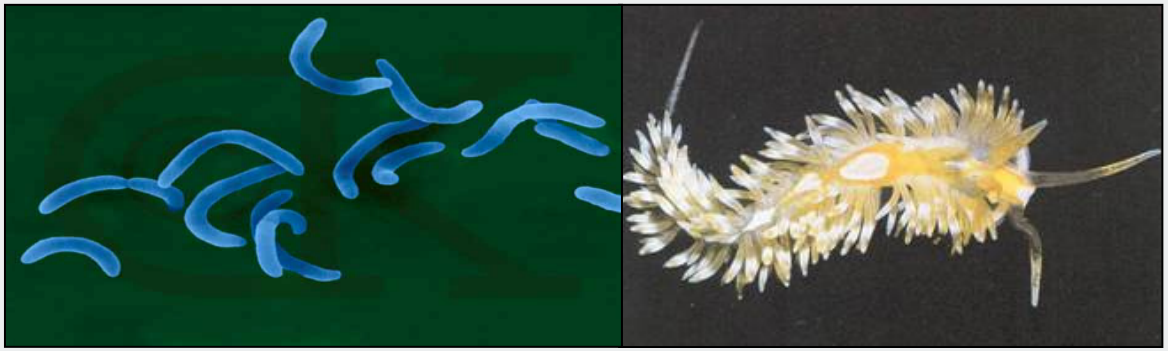
3. Alternative options to provide equivalent environmental protection as options 1 and 2

Compliance with regulation D-1: Ballast water exchange

- Exchange of at least 95% volume (3 times the volume of each tank considered equivalent)
- The ship should not be required to deviate from its intended voyage, or delay the voyage to comply with distance/depth requirements
- If distance/depth requirements cannot be met, the port State may designate areas where a ship can conduct ballast water exchange
- Ballast water exchange shall not take place if the master decides so for safety reasons

Compliance with regulation D-2: Ballast water discharge standard

- Discharge less than a certain quantity of viable organisms per volume unit
- Indicator microbes shall not exceed specified concentrations



Compliance with regulation D-2: ballast water management systems

All compliance technologies are subject to approval to ensure they meet the relevant IMO standards, have minimal adverse environmental impacts and are suitable for use on board ships.

The mandatory 2016 Guidelines (G8) / BWMS Code cover, inter alia:

- Testing and performance specifications for BWMS
- Type approval process

BWMS making use of chemicals or "Active Substances" require approval by MEPC in accordance with the Procedure (G9)

- Proposals are evaluated by the GESAMP Ballast Water Working Group to ensure that BWMS are **safe for human health, ships and the environment**

G8 tests efficacy of BWMS, G9 ensures safety of BWMS

Obligations of flag States

Ensure that vessels flying their flag are in compliance with the Convention

- Survey ships and deliver certificates
- Enact domestic legislation, including sanctions
- Take action when a violation by a ship flying its flag is reported
- Recruit qualified FS officers and train them on the implementation and enforcement of IMO instruments
- Evaluate the performance of its own measures including the use of ROs (liability lies on the Flag state)

Rights and obligations of port/coastal States

Enforce the Convention to protect their waters

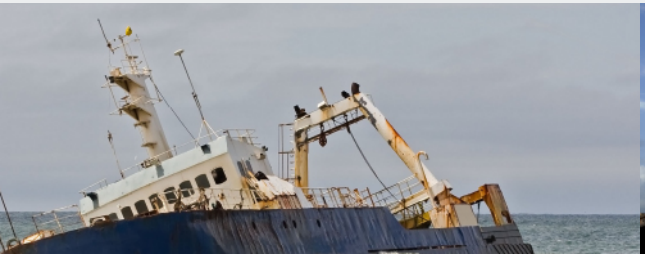
- Port States have the right to intervene on board a foreign flag ship in its port/waters
- Enact domestic legislation
- Carry out port State control inspections
- Provide reception facilities for sediments (if required)
- Take action when a violation by a ship in a port or within the jurisdiction is detected (warning, detention, etc.)

BWM Convention: Other aspects

- Port State control (inspections and sampling)
- Survey and certification
- Ballast water management plan (BWMP) and ballast water record book (BWRB)
- Regulation B-3 (D-1 to D-2 timeline)
- Additional measures
- Ballast water uptake warnings
- Experience-building phase

Outline

- Overview of BWM Convention
- **Introduction to exemptions**
- Principles of risk assessment for exemptions
- Same risk area (SRA) concept

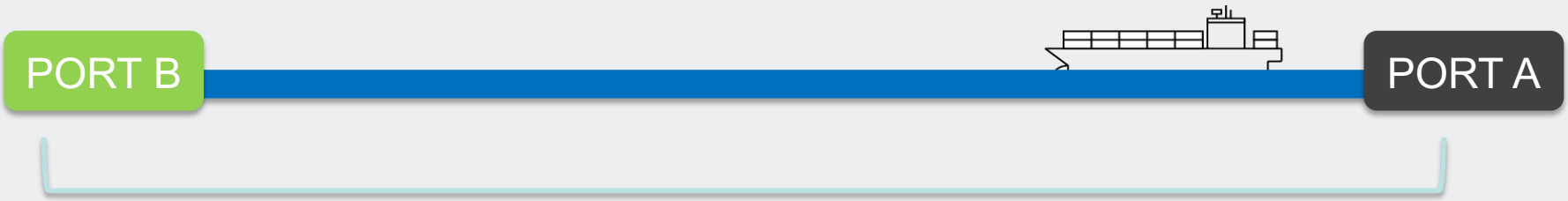


Annex: Section A
Exceptions and exemptions

- **Exceptions** (A-3): ships are not required to manage ballast water if discharge of unmanaged ballast water is:
  - necessary for ensuring safety of ship, saving lives, etc.
  - accidental due to damage to ship or equipment
  - to avoid pollution
  - loaded and discharged in the same area or in the high sea
- **Exemptions** (A-4): Administrations may grant exemptions to ships operating between specified ports or locations
  - Risk assessment according to Guidelines (G7) required
  - Adjacent states that may be affected must be consulted

Exemption – circumstances

Ship always on same route (e.g. ferry)



Very short distance and sharing
same biogeographic region

Shipowners request authorization to port/coastal States AND they must demonstrate acceptable risk

There is no such thing as zero risk…

Regulation A-4 – Exemptions

Exemptions to BWM requirements under certain conditions:

- Specified ports or locations
- Consultation with other States that may be affected
- No mixing with water from other locations
- Risk assessment to ensure same level of protection
- Maximum 5 years subject to intermediate review
- Communicate to IMO
- Exemption recorded in BWRB

➢ 2017 *Guidelines for Risk Assessment under Regulation A-4 of the BWM Convention* (G7)

Implications of exemptions for shipowners

Advantages

1. No BWM required (exchange, BWMS installation, etc.)
2. No maintenance and operation expenses
3. No training of crew
4. No risks of violation
5. No administrative burden

Drawbacks/limitations

1. Cost of risk assessment (but remains lower than BWM)
2. Exemption must be reviewed and can present restrictions
3. No exemption from some key elements – e.g. BWMP & BWRB
4. Restriction in navigation – no flexibility
5. Ship resale

Port authority / shipowner responsibilities

Port authority / Party

1. Conduct or require RA
2. Provide acceptable procedures and guidelines
3. Evaluate RA
4. Collect evidence of compliance

Shipowner

1. Contact Parties
2. Ascertain risk assessment procedures
3. Follow guidelines provided by Parties and IMO
4. Evidence of no water mixing
5. Provide voyage analysis

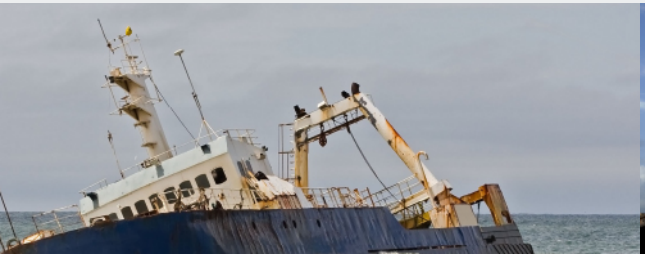



Scientific data collection and analysis

- In-depth analysis of each location
- Conduct port biological baseline studies (PBBS) and mobilize on-site research
- Systematic analysis of data
- On-going verification

Outline

- Overview of BWM Convention
- Introduction to exemptions
- **Principles of risk assessment for exemptions**
- Same risk area (SRA) concept



Principles of regulation A-4 and Guidelines (G7)

***2017 Guidelines for risk assessment under regulation A-4 of the BWM Convention* (G7)** (resolution MEPC.289(71))

- Determine best **methods** for robust risk assessment
- Collect **data**
- Make **informed decisions** (acceptable vs unacceptable risks)
- **Accept** exemption **or not**

Three risk assessment methods (can be used individually or in any combination):

- Environmental matching risk assessment
- Species' biogeographical risk assessment
- Species-specific risk assessment

Principles of regulation A-4 and Guidelines (G7)

- **Effectiveness** (achieve appropriate level of protection)
- **Transparency** (reasoning, evidence and uncertainty documented and available to decision-makers)
- **Consistency** (uniform high level of performance, using common process and methodology)
- **Comprehensiveness** (environmental / social & cultural / economic values considered)
- **Risk management** (determine acceptable level of risk)
- **Precautionary** (uncertainty, unreliability and inadequacy of information)
- **Science based** (best available information)
- **Continuous improvement** (periodical review)

Goal: Determine high/low risk situation with accuracy

Risk assessment methods: Environmental matching risk assessment

"The degree of **similarity** between the locations provides an **indication of the likelihood of survival** and the establishment of any species transferred between those locations." (Guidelines (G7), paragraph 6.2.1)

- Document water abiotic conditions
- Compare locations
- Consider variations

Nearby ports with high similarity = common ground for invasions

Risk assessment methods: Species' biogeographical risk assessment

"**Overlapping species** in the donor and recipient ports and regions are a direct indication that environmental conditions are sufficiently similar to allow a shared fauna and flora." (Guidelines (G7), paragraph 6.3.1)

- Record of invasion on the biogeographical region
- Record of native and non-indigenous species that have spread history and harmful potential
- Compare and verify overlapping species

Limited risk for ships remaining in the same biogeographical region

Risk assessment methods: Species-specific risk assessment

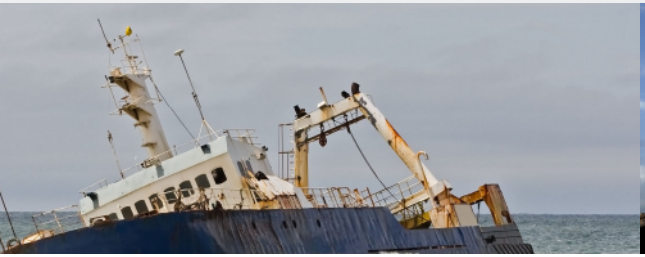
"…use information on life history and physiological tolerances to define a species' physiological limits and thereby **estimate its potential to survive or complete its life cycle** in the recipient environment." (Guidelines (G7), paragraph 6.4.1)

- List of target species
- Known physiological tolerances
- Consider uncertainties (number / behaviour, etc.)

Assess the risk of invasion of specific species based on habitats and likelihood of survival

Outline

- Overview of BWM Convention
- Introduction to exemptions
- Principles of risk assessment for exemptions
- **Same risk area (SRA) concept**



Introduction to the same risk area (SRA) concept

- **Same Risk Area (SRA) – an agreed geographical area based on a completion of a risk assessment carried out in line with Guidelines (G7)**

- The SRA concept builds on risk assessments and consultations between States in accordance with the provisions of regulation A-4 and Guidelines (G7)

- The SRA approach facilitates granting exemptions in specific areas and is expected to be useful e.g. for short sea shipping

- MEPC 70 agreed that Administrations may grant exemptions in accordance with regulation A-4 based on the SRA concept, subject to consultation and agreement between States that may be affected by such exemptions

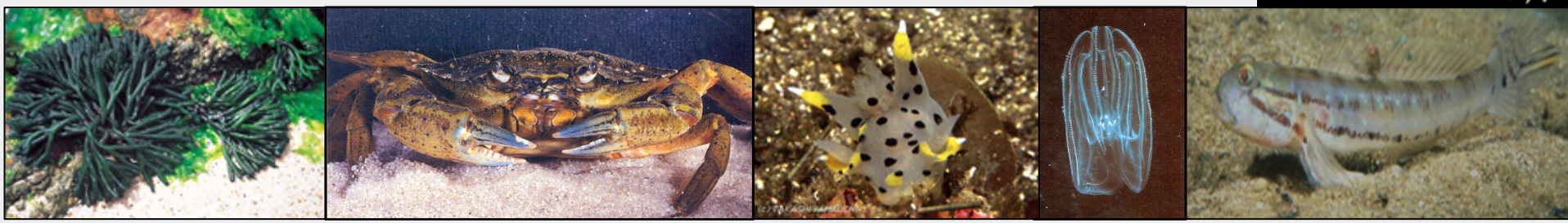
SRA – in short

SRA: risks generated by shipping are not considered high compared to natural dispersal of species: therefore, ships operating exclusively within this area may be granted exemptions

- Evaluation of natural dispersal for regional approach to exemption
- Probability of dispersal assessment through hydrodynamic knowledge and biological features of target species
- Ship has to apply and the exemption is to be recorded in the BWMP
- Exemption if ship operates in SRA without mixing water from outside the SRA
- Risk assessment to define SRA – species-specific

Exemptions: conclusion

- Exemptions require step-by-step process
- Guidelines (G7) presents basic methodology
- Limited exemption with periodic review
- Regional approach and same risk area



International Maritime Organization

4 Albert Embankment
London
SE1 7SR
United Kingdom

Tel: +44 (0)20 7735 7611
Fax: +44 (0)20 7587 3210
Email: info@imo.org
www.imo.org



twitter.com/imohq facebook.com/imohq youtube.com/imohq flickr.com/photos/imo-un/collections