

# MASS and the 1982 Law of the Sea Convention – A Paradigm Shift or Old Wine in New Wineskins?

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# The Current Situation Concerning MASS (Maritime Autonomous Surface Ships)

- Are in the experimental phase;
- Those that currently exist seemingly solely operate in waters that are part of one State's territory, and their use is authorised;
  - thus, the international law of the sea framework still has limited relevance at present;
  - however, this presents an opportunity to think about the significant challenges that MASS present, and how to deal with them legally, before rather than after the fact.

# Looking to the Future

- The international law of the sea framework will become particularly relevant when MASS start to embark on international voyages;
- Then, various international law of the sea questions do arise, for example: are they ‘ships’ in the sense of the 1982 United Nations Convention on the Law of the Sea (LOSC) and how it can be ensured that the flag State of a MASS meets all its obligations?
- A correlation exists between the level of autonomy MASS are imbued with and the extent of difficulties they present for the existing international legal rules;
  - most problematic are:
    - MASS controlled from an onshore remote-control centre;
    - MASS operated completely based on algorithms performed by a computer.

# The Law of the Sea Framework (i)

- International law of the sea divides the seas and oceans into different maritime zones and distributes rights and obligations amongst States.
- The LOSC
  - represents the most elaborate collection of conventional rules dealing with the seas and oceans;
  - was negotiated by States between 1973-1982;
  - entered into force in 1994.

# The Law of the Sea Framework (ii)

- International rules pertaining to MASS also flow from international shipping conventions, including SOLAS and MARPOL.
- Some change must be made to the existing law of the sea framework in order to facilitate MASS operating at sea;
- One main bone of contention is how extensive does the overhaul of the existing law of the sea framework have to be?
  - can this be confined to making the necessary amendments to the IMO conventions?
  - or, would this only resolve matters in part?
    - that is, for example, because of the LOSC operating on the assumption that a vessel has a master, officers, and/or a crew on board.

## A Ship under the Law of the Sea Convention? (i)

- Only ships enjoy navigational rights and freedoms;
- Do MASS meet the required definition, even though they operate without a master, officers, or crew on board?
  - the answer often provided is *yes*:
    - they both transport goods;
    - definitions found in other international shipping conventions emphasise three aspects: being man-made; having navigational capabilities; and being used for transportation.

# A Ship under the Law of the Sea Convention? (ii)

- The LOSC does not spell out what a ship is.
- What implications follow from this lack of definition, for example:
  - does it enable MASS to be brought within the meaning of a ‘ship’ under the LOSC?
    - the text of the LOSC does not explicitly rule out MASS;
  - does this point to the importance of how a State defines a vessel?
    - this argument has its roots in Article 91 LOSC;
    - from municipal law no coherent picture can be derived;
      - ❖ e.g., Malta requires a vessel to have a certain number of officers on board to be registered (SL 234.51 Merchant Shipping (Maritime Labour Convention) Rules).



# Flag State Obligations and MASS (i)

- Difficulties arise for the flag State to meet all the obligations that are laid upon it by the LOSC concerning MASS.
- Two examples of flag State duties that raise questions:
  - Article 98(1)(a) LOSC: “Every State shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers: (a) to render assistance to any person found at sea in danger of being lost”;
    - the inability of MASS to render assistance to those in need can be a reason for flag States to not register MASS;
    - MASS are under the obligation to render assistance, when a MASS encounters a person in distress at sea;
      - ❖ this obligation is not absolute.



# Flag State Obligations and MASS (ii)

- However, the main difficulties relate to Article 94 LOSC;
- E.g., Article 94(4)(b) LOSC: “that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship”.
  - prescribes that each flag State must ensure that its vessels have a (properly qualified) master and crew;
  - in fact, under this obligation, each flag State must not only make sure that its vessels have a (properly qualified) master (on board?), but officer(s) *and* (not ‘or’) crew as well;
  - can an onshore controller be considered the ‘master’ for LOSC purposes?

# The Genuine Link Requirement and MASS (i)

- In order for a State to grant its nationality to MASS, there has to be a genuine link (Article 91(1) LOSC);
  - trickles down to that a genuine link is assumed to exist when a flag State has actual control over a ship;
- But is a flag State able to exercise control over a remote controller if they are, for example, not located in the territory of the flag State?
- Can the human controller onshore in a remote-control centre indeed be considered the ‘master’?
  - a difficulty is that the LOSC speaks of a singular master;
  - how can this requirement be transposed to one or more controllers that are located in an onshore remote-control facility?

# The Genuine Link Requirement and MASS (ii)

- Whether a ship can be registered without having a master on board differs across jurisdictions;
  - UK: the ‘master’ is “every person (except a pilot) having command or charge of a ship” (S.313 Merchant Shipping Act 1995);
  - Greece establishes a link with that the master is on board a ship (Article 43 of the Greek Code of Private Maritime Law).

# The Genuine Link Requirement and MASS (iii)

- Assuming that an onshore controller can be considered the ‘master’, more is seemingly required on the part of the flag State:
  - that is, to meet the threshold of the flag State exercising its jurisdiction and control in an effective manner over MASS;
    - the flag State cannot reduce the extent of its obligations based on the modalities of operation of MASS;
  - considering that flag States are responsible for MASS flying their flag and any legal issues arising from their operation, they would need to regulate matters in the relation with the State on whose territory the onshore remote-control centre, and thus the controller/master, is based.

# Bringing MASS Under the Law of the Sea Convention (i)

- What importance must be attributed to the facts
  - that when the LOSC was negotiated by States, MASS could not have been foreseen?;
  - and that the LOSC presupposes that a merchant ship carries a master, officers, and a crew on board?
- Relevance of the Vienna Convention on the Law of Treaties:
  - Article 31(1): “A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.”

## Bringing MASS Under the Law of the Sea Convention (ii)

- The primary rule of interpretation places emphasis on the text of a treaty:
  - that is, to establish the ordinary meaning of the wording (Article 31 VCLT), supplemented by its context (Article 32 VCLT);
- Bringing MASS within the reach of the LOSC requires that its provisions pertaining to international shipping are read evolutionary, or in a purposive way (*Dispute regarding Navigational and Related Rights (Costa Rica v. Nicaragua)*).



# Bringing MASS Under the Law of the Sea Convention (iii)

- Relevant considerations concerning MASS and the LOSC:
  - drafted as a framework convention;
  - the LOSC provides for a flexible framework;
  - the LOSC carves out a key role for the IMO in developing rules and standards for shipping;
    - Article 94(5) LOSC recognizes the need for further development of rules by the competent international organization;
    - flag States, in taking measures under Article 94(3 & 4) LOSC, are “required to conform to generally accepted international regulations, procedures and practices”.



# The Way Forward (i)

- Should the LOSC itself be reopened for renegotiation because of it being ‘unfit’ to address MASS, as has occasionally been suggested?
  - NO!
- The LOSC is a framework convention recognising that for certain matters more specific law might be required;
- There are alternative options:
  - to negotiate an Annex to the LOSC;
  - development of a *de novo* regime;
  - customary international law;
  - following the IMO route.

# The Way Forward (ii)

- The various IMO Conventions could be updated with more ease;
  - or new instruments (e.g., something similar to the Polar Code) could be created;
- The IMO plays an important role in future regulation of MASS (Article 94(5) LOSC);
- A broader issue does arise:
  - to what extent can the IMO remove all of the legal hurdles thrown up by the LOSC in relation to MASS?

# Some Concluding Thoughts (i)

- The disappearance of a master, officers, and crew from on board a ship would be more of a paradigm shift for the law of the sea framework in certain respects;
  - particularly when it comes to the role of flag States in relation to MASS and to ensure that they meet their flag State obligations.
- MASS cannot comply with all existing international and generally accepted shipping rules and regulations as they currently stand.

## Some Concluding Thoughts (ii)

- Without the international legal framework providing provisions specifically tailored to MASS, or that its relevant provisions have not been updated to account for their *modus operandi*, flag States should think carefully about registering MASS;
  - need to make sure that flag State duties in relation to MASS are adequately executed;
    - for example, the flag State will need consider whether by agreeing to the remote operation of a MASS from within another State, it is able to meet its flag State duties;
  - flag State duties are not changed by the modalities of the operation of the ship;
  - if the flag State cannot meet its duties, it should not register MASS.

Thank you for your attention!

Any questions?