INTERNATIONAL MARITIME ORGANIZATION

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REDUCTION OF GHG EMISSIONS FROM SHIPS

Establishing High Speed Craft as a new sector in the CII framework

Submitted by INTERFERRY

SUMMARY

Executive summary:	INTERFERRY suggests that High Speed Craft (HSC) should be defined as a new sector in MARPOL Annex VI, chapter 4 and for the purposes of the IMO DCS. The annual operational carbon intensity indicator (CII) shall be applied to this new sector when the necessary amendments to MARPOL have been introduced and an HSC reference line has been established.
Strategic direction, if applicable:	3
Output:	3.2
Action to be taken:	Paragraph 17
Related documents:	MEPC 76/7/3, MEPC 76/7/5 and MEPC 76/INF.8

Introduction

1 INTERFERRY reported to Round 2 of the Correspondence Group on the development of technical guidelines on carbon intensity reduction (TOR 2) that ships classified as High Speed Craft (HSC) – as defined in SOLAS chapter X, regulation 1.3 – were considered as ro-ro passenger ships in the IMO Data Collection System (DCS). Unfortunately, due to the compressed timeline, there was no time for the Correspondence Group to deliberate further on this matter.

Ship types

2 When the EEDI was developed, care was taken to ensure that the categorization of ships would offer a "fair and robust" application of the requirements. To that end, a few principles were adhered to, inter alia:

.1 ships with non-conventional propulsion were treated differently from ships with conventional propulsion; and

.2 ships that cannot do each other's work or services should not be in the same category.

3 At that time, it was not known that the same categorization would be used 10 years later for the implementation of CII, and it is clear to INTERFERRY that a transposition of the EEDI ship categories (draft revised consolidated MARPOL Annex VI, regulations 2.25 to 2.42) does not offer a "fair and robust" application of CII for HSCs.

4 While the DCS is not accessible to INTERFERRY, drawing information from other data sources (e.g. IHS) shows that there are only very few HSC ships falling within the general CII scope, tentatively 16 individual ships. However, for those 16 individual ships, being included in the 'conventional' ro-ro passenger sector would constitute an unequitable comparison of volume-oriented mono-hull ship designs and deadweight-oriented multi-hull ship designs. This would have fundamental ramifications for those ships, and any existing or future HSC of 5,000 GT and above put on the international market.

5 As can be seen in figures 2 and 3, HSC is a distinctly different ship design compared to conventional ro-ro passenger ships, and is primarily designed to carry passengers and light vehicles, whereas conventional ro-ro passenger ships can carry heavy duty cargo.

Figure 1 – 214 m, 42,000 GT conventional ro-pax

Figure 2 – 91 m, 5,600 GT High Speed Craft

6 While HSC to some extent offer similar services as 'conventional' ro-ro passenger ships, it is a distinctly different ship type, and is in constant pursuit of efficiency improvements through advanced technologies and through lowering their light weight by radical measures such as hollow boring of propulsion shafting and utilization of honeycomb interior panelling.

7 To that end, further CO_2 improvements will therefore likely revolve around reducing operational speed. However, it is challenging to reconcile one IMO requirement (SOLAS chapter X, regulation 1.3) which explicitly forces the design to be able to operate at high speed with the pending IMO requirement (MARPOL Annex VI, chapter 4, regulation 28) which implicitly forces the same design to be operated at a low speed.

8 As illustrated in figure 3, measured by CO_2 per nautical mile, HSC are indistinguishable from conventional ro-ro passenger ships. However, measured by cargo capacity, either through AER or cgDIST, these ships do not fit well into the power regression average approach that make up the reference line.

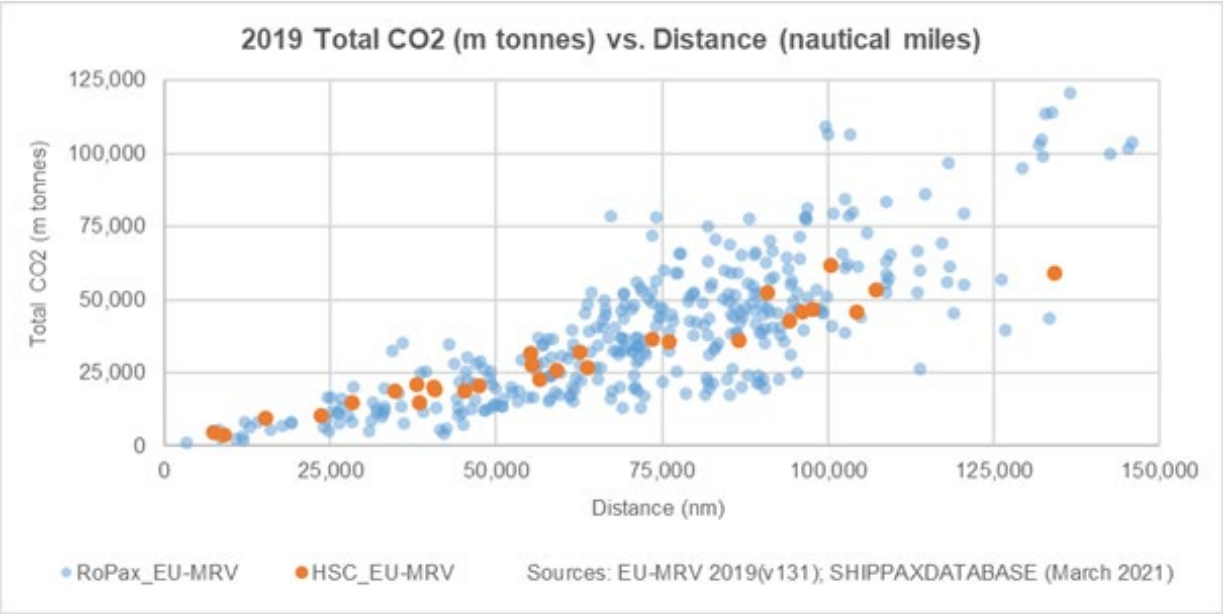

Figure 3 – CO_2 per nm for HSC (orange) and conventional (blue)

9 The Report of the Correspondence Group on the Development of Technical Guidelines on Carbon Intensity Reduction (TOR 2) notes these concerns:

> "…It was reiterated that High Speed Craft (HSC) should be classified as a separate sector in the DCS data set and be removed from the reference line for ro-ro passenger ships." (MEPC 76/7/5, paragraph 22)

HSC reference line

10 If HSC were to be classified as a separate sector, it is probably not feasible to establish a reference line in time for the 1 January 2023 entry into force date of the CII framework. Also, while fairly homogenous, if treated as a subsector this population is arguably too small to offer satisfactory statistical significance.

11 Given the very low number of ships in this tentative new sector, great care must be taken to ensure that an appropriate reference line can at all be established and it would also be necessary to assess if this sector should use the AER or cgDIST approach, given their sensitivity to weight; INTERFERRY's initial consideration is that AER would be more appropriate.

12 Through the EU MRV system, data is available for an additional 22 HSC of 5,000 GT and above currently engaged on the EU domestic market. Combined with the known 16 ships falling under the IMO scope, this wider HSC fleet may support the establishment of a fair reference line (even if a majority of the ships in the reference line would not necessarily need to meet any CII requirement).

Discussion

13 It is noted that HSC cannot be included in the ro-ro passenger ship segment, lest the entire HSC fleet is forced out from the international market but given that this issue was only discovered in January 2021, and that the IMO short-term measure needs to be concluded by MEPC 76 in June 2021, it has not been possible to develop any refined proposal.

14 INTERFERRY recalls that for the implementation of the EEDI, the final framework for ro-ro cargo and ro-ro passenger ships had not been finalized at the date of enter into force, so for a period of time these ship types calculated their attained EEDI, but did not yet have to meet a required EEDI.

15 INTERFERRY suggests that while the analysis is done whether an HSC reference line can be established and while the necessary MARPOL amendments are processed, and while any other adjustments are made to the relevant instruments, the HSC fleet should be required to follow the CII provisions as outlined in the SEEMP, but not yet to meet a required annual operational CII.

16 In conjunction with the 2026 review as per draft regulation 28.11, proposals could be developed for how to more permanently treat the HSC sector. Provided that the HSC are called to report their annual operational CII, the review would have access to data for at least two years' worth of HSC operations.

Action requested of the Committee

17 The Committee is invited to consider this document and take action as appropriate, and in particular, to endorse INTERFERRY's recommendations that:

.1 HSC is defined as a sector in MARPOL Annex VI, in a new regulation 2.2.11*bis*;

.2 it is assessed if a reference line can be established for HSC; and

.3 as from 1 January 2023, HSC of 5,000 GT and above shall only report their attained annual operational CII.