



WHEN TRUST MATTERS

HSC Code to Light Craft Code

Interferry 4-8 November, Hobart

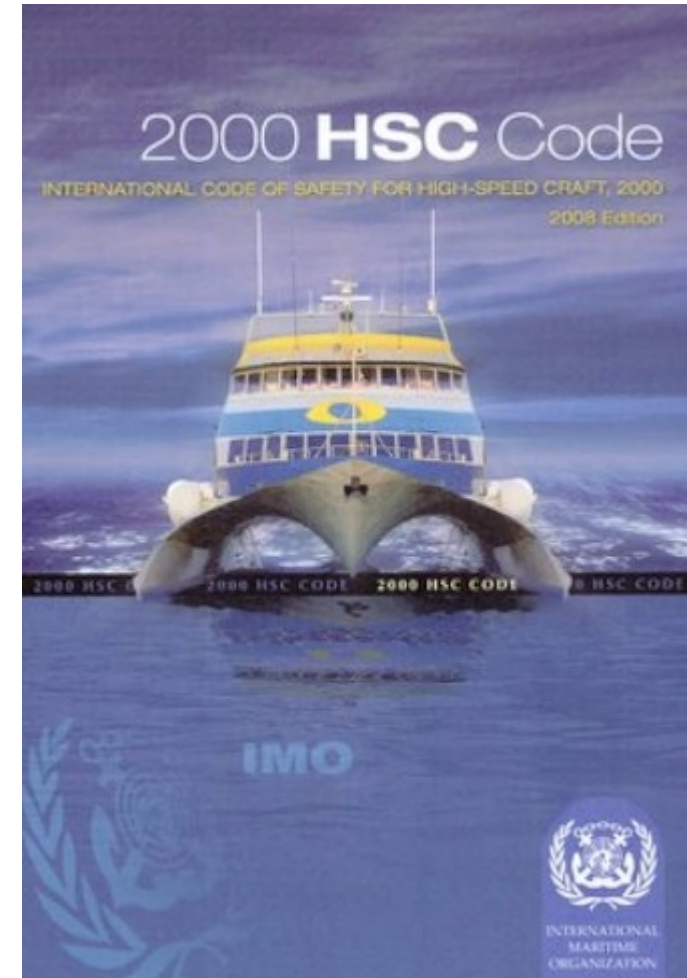
High Speed Craft Code

- SOLAS was originally written for steel ships plying the North Atlantic in winter.
- SOLAS has a special subchapter for high speed craft, the HSC Code.
- This enables lighter craft but with the need to achieve high-speed requirement to be considered covered by this Code.
- If we are to aim for carbon reduction requirements the speed criteria does not make any sense today.



HSC – HSC & Light Craft Code

- The HSC 2000 Code should be modified into a Light Craft Code which:
 - Keeps at least the same level of safety as for current HSC
 - Is applicable for vessels that do not reach the threshold speed in the HSC Code
 - Strips out any “speed dependent safety issues” in the HSC Code



Impact of Going Slow?

- The safety level of the HSC is based on providing a safety standard at least equivalent to conventional ships.
- Therefore there should not be any safety impact upon going slow.
- HSC requirement that passenger craft which do not proceed in the course of their voyage more than four hours at 90% of maximum speed from a place of refuge when fully laden.



Speed (knots)	Distance to Safe Haven (NM)
20	72
35	126

Impact of Going Slow - power

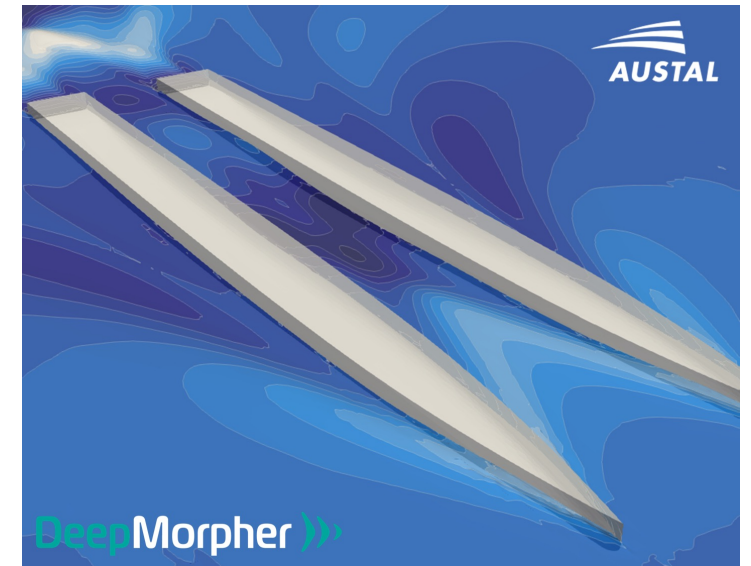
Using state of the art techniques, Austal provided powering data for a conceptual 80 m RoPax ferry with three powering options:

- A modern 35 knot HSC with waterjet propulsion
- An optimised 20-25 knot Light Craft with waterjet propulsion
- An optimised 20-25 knot Light Craft with propeller propulsion

Comparison is made against a typical existing HSC ferry

- 20+year old, 35+knot HSC with waterjet propulsion

L _{OA}	80 m
Deadweight	500 t
Pax	1,000
Car Bays	168



Impact of Going Slow - power

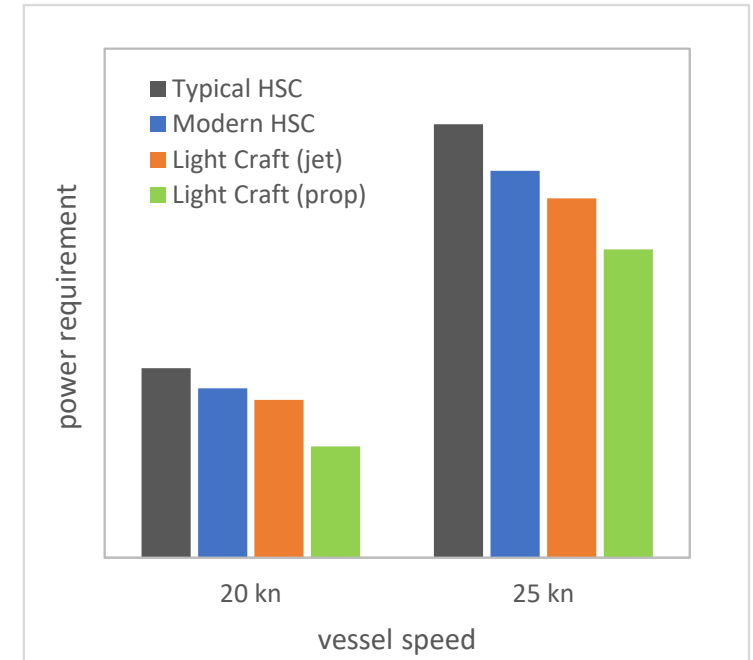
An optimised 20-25 knot Light Craft (waterjet) will require up to:

- 17% less power than a typical existing HSC vessel
- 7% less power than a modern high-speed HSC vessel

An optimised 20-25 knot Light Craft (propeller) will require up to:

- 30-40% less power than a typical existing HSC vessel
- 20-35% less power than a modern high-speed HSC vessel

For a 20 knot Light Craft, an engine 2-3 times larger is required to achieve HSC speed of 25 knots.



Impact of Going Slow - power

DNV undertook a similar exercise for a state-of-the-art and well optimised conventional RoPax ferry with similar deadweight and pax capacity.

An optimised 20-25 knot Light Craft (propeller) will require up to:

- 30-40% less power than an optimised conventional RoPax ferry.

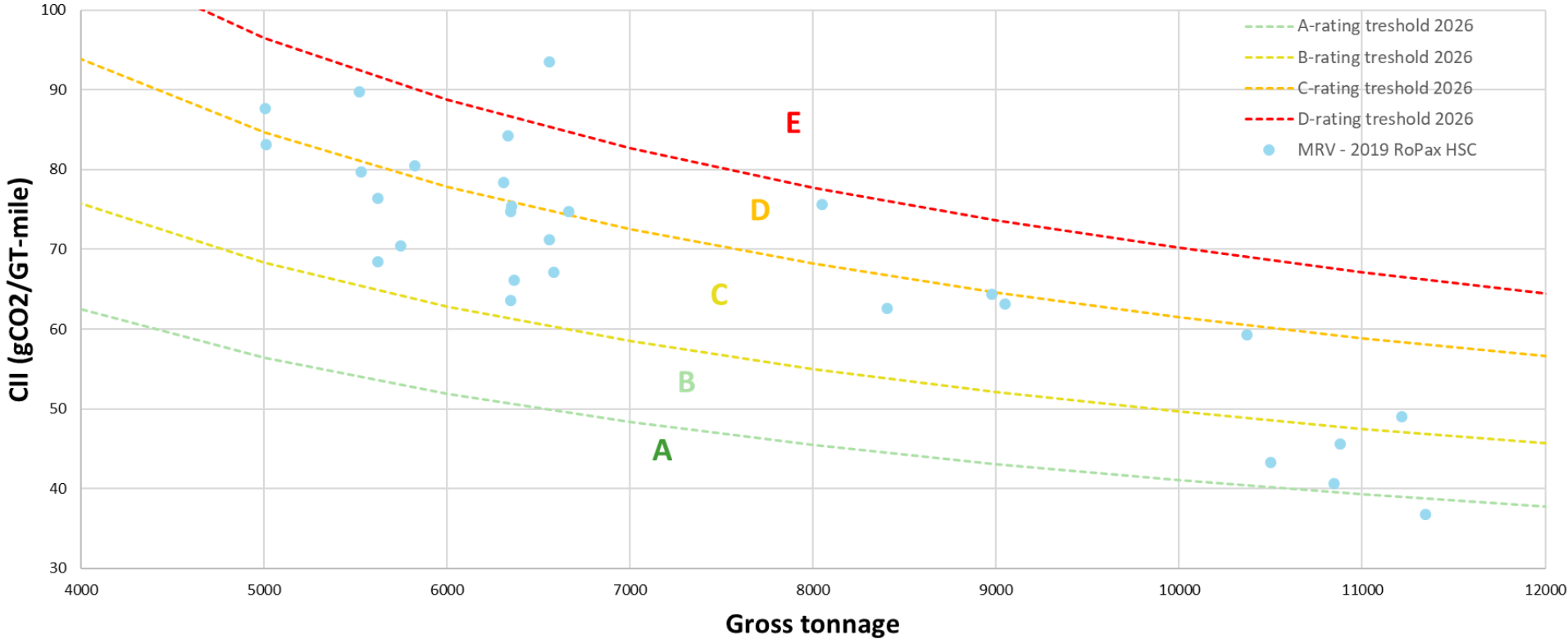
Note:

DNV assessment considers a propeller design which focuses more on avoiding cavitation instead of highest propeller efficiency.


All analyses do not consider the full operational profile and each route requires specific analysis.

CII requirements – Ro-Ro passenger ship (HSC)

CII rating boundaries as per 2026



Update on MSC106

	 INTERNATIONAL MARITIME ORGANIZATION	E
MARITIME SAFETY COMMITTEE 104 th session Agenda item [15]	MSC [106/15/xxx] Document date, i.e. [xx July 2021] Language: i.e. Original: ENGLISH Pre-session public release: <input checked="" type="checkbox"/>	
WORK PROGRAMME Proposal for a new output to [revise][amend] the [1994 and] 2000 HSC Codes Submitted by [Australia, <u>Interferry...</u>]		
SUMMARY		
Executive summary:	This document proposes a new output to be included in the strategic plan of the Organization and on the provisional agenda for the 104 th session	

HSC Code to Light Craft

- HSC requirements based on equivalence to SOLAS.
- Should be no safety impediment to going slow provided compliance with time from safe haven etc is complied with.
- Clear evidence that Light Craft can be more efficient than traditional RoPax.
- Light Craft going slow can clearly meet the IMO goal of emission reductions.