

EuDA Annual General Meeting 2012

CO₂ Emissions from Shipping (Dredgers)

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Summary of Topics

- ➔ Brief Introduction to ICS
- ➔ CO₂ in MARPOL Annex VI
- ➔ Overview of current and potential issues



Brief Introduction to ICS

- ➔ International Association of National Shipowners Organisations
- ➔ Statistics
- ➔ Activities

www.ics-shipping.org



CO₂ in MARPOL Annex VI

IMO Resolution MEPC.203(62)
(New regulations)

- ➔ EEDI
- ➔ SEEMP



Industry Engagement on CO₂

- ➔ Fuel Consumption – A critical business parameter
- ➔ Involvement at IMO
- ➔ Development of SEEMP Guidelines



EEDI

$$\frac{\left(\prod_{j=1}^n f_j \right) \left(\sum_{i=1}^{nME} P_{ME(i)} \cdot C_{FME(i)} \cdot SFC_{ME(i)} \right) + (P_{AE} \cdot C_{FAE} \cdot SFC_{AE}^*) + \left(\left(\prod_{j=1}^n f_j \cdot \sum_{i=1}^{nPTI} P_{PTI(i)} - \sum_{i=1}^{neff} f_{eff(i)} \cdot P_{AE_{eff(i)}} \right) C_{FAE} \cdot SFC_{AE} \right) - \left(\sum_{i=1}^{neff} f_{eff(i)} \cdot P_{eff(i)} \cdot C_{FME} \cdot SFC_{ME}^{**} \right)}{f_i \cdot f_c \cdot Capacity \cdot f_w \cdot V_{ref}}$$

Power (Main & Aux) x SFC x Carbon factor

Ship Capacity x Speed



IMO GUIDANCE

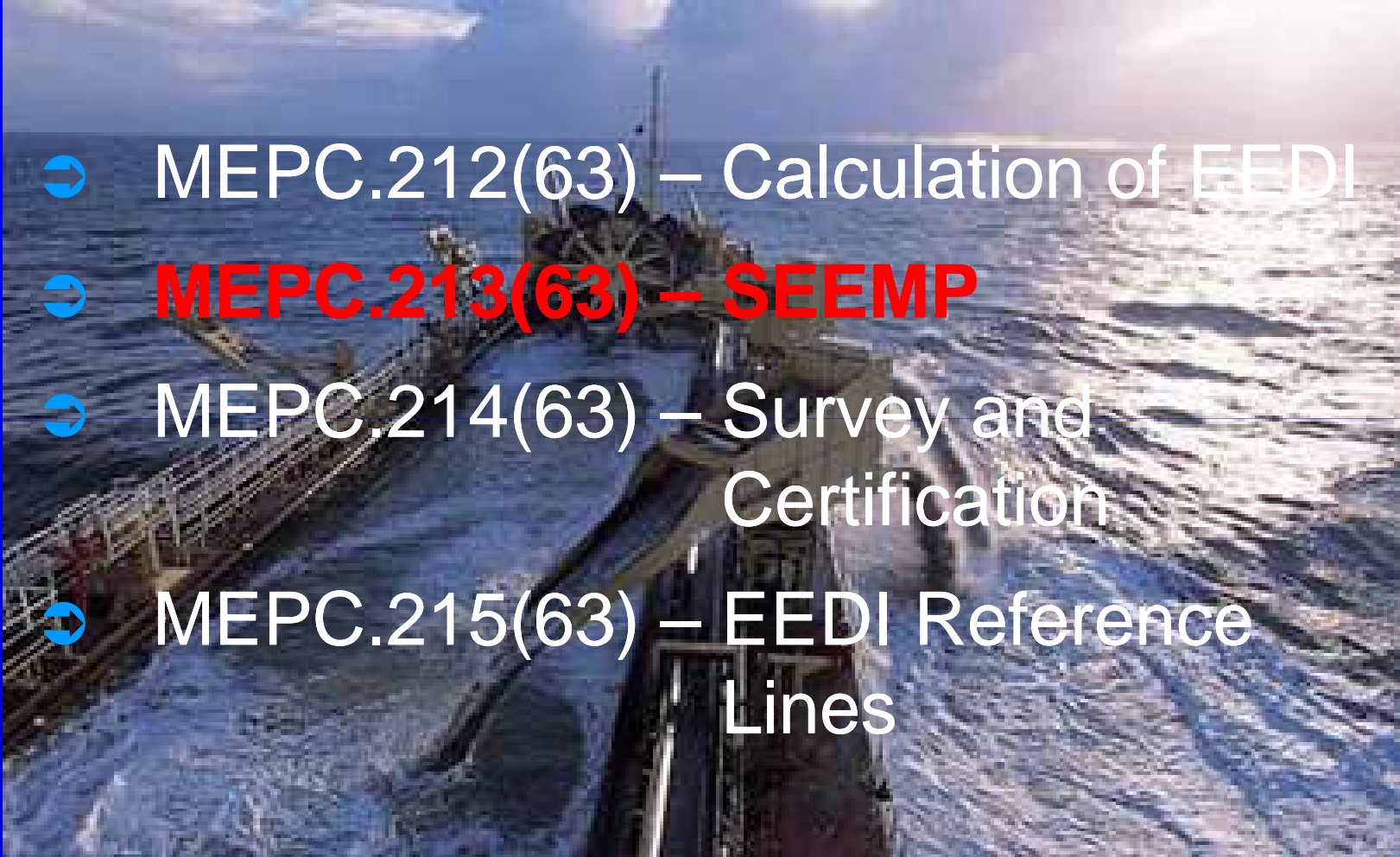
- ➔ MEPC.212(63) – Calculation of EEDI
- ➔ MEPC.213(63) – SEEMP
- ➔ MEPC.214(63) – Survey and Certification
- ➔ MEPC.215(63) – EEDI Reference Lines





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SEEMP

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- ➔ MEPC.212(63) – Calculation of EEDI
 - ➔ **MEPC.213(63) – SEEMP**
 - ➔ MEPC.214(63) – Survey and Certification
 - ➔ MEPC.215(63) – EEDI Reference Lines



A SAMPLE FORM OF A SHIP EFFICIENCY ENERGY MANAGEMENT PLAN

Name of Vessel:	GT:	
Vessel Type:	Capacity:	
Date of Development:	Developed by:	
Implementation Period:	From: Until:	Implemented by:
Planned Date of Next Evaluation:		

1 MEASURES

Energy Efficiency Measures	Implementation (including the starting date)	Responsible Personnel
Weather Routeing	<Example> Contracted with [Service providers] to use their weather routeing system and start using on-trial basis as of 1 July 2012.	<Example> The master is responsible for selecting the optimum route based on the information provided by [Service providers].
Speed Optimization	While the design speed (85% MCR) is 19.0 kt, the maximum speed is set at 17.0 kt as of 1 July 2012.	The master is responsible for keeping the ship's speed. The log-book entry should be checked every day.

2 MONITORING

Description of monitoring tools

3 GOAL

Measurable goals

4 EVALUATION

Procedures of evaluation



Questions?





Thank you for your attention!

