COUNCIL
WORKING PARTY ON SHIPBUILDING

A VIEW ON WORLD SHIPBUILDING TO 2015 AND SOME TECHNICAL CHALLENGES THAT MAY ARISE

[Presentation by the International Association of Classification Societies - (IACS)]

This document, prepared by Mr. Tim Kent, Lloyd’s Register, on behalf of the International Association of Classification Societies (IACS), will be presented at the second session of the Workshop with non-member economies on shipbuilding policies to be held on 18-19 December 2006.

Contact: Structural Policy Division, Mr. Danny Scorpecci. tel: +33 1 45 24 94 33; fax: +33 1 44 30 62 57; e-mail: danny.scorpecci@oecd.org

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# A view on world shipbuilding to 2015 and some technical challenges that may arise

OECD workshop 18-19 December 2006
Paris
Tim Kent
Lloyd’s Register
on behalf of
International Association of Classification Societies

## Summary

Presentation in two parts

- An independent view on world shipbuilding to 2015
  - Development of global building capacity
  - Contracting demand by shiptype
- Some technical challenges arising
  - Through impending regulation
  - Through trading requirements
An independent view on world shipbuilding to 2015

- Classification societies, like shipbuilders, need a forward market view
  - Resources to develop this are typically less than available to the major building countries...
  ...
  but this is an independent global view

- Historical data is easy to come by ... but forward forecasts are more difficult and are based on
  - Economic and trade forecasts
  - Existing fleet profile data
  - Extrapolation from previous cyclical behaviours
  - Expert assistance – forecasts in this presentation are based on work by: Maritime Strategies International Ltd, London

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World shipbuilding capacity to 2015

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Data from Maritime Strategies International Ltd, London
Contracting by shiptype (mGT)
Actual to 2005 and forecast to 2015

Data from Maritime Strategies International Ltd, London

OECD Workshop 18-19 Dec 06  Data from Maritime Strategies International Ltd, London
technology demands for the future

Some technology challenges

• Competing in an increasingly competitive market
  – More of the same ... but quicker, better, cheaper, etc.
  – Business as usual
• New regulation compliance
  – Some examples
• New trading requirements
  – Some examples
### Technology Demands from Changing Regulation

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#### IMO Forthcoming Legislation due for 2007-8

<table>
<thead>
<tr>
<th>Date</th>
<th>Regulation &amp; Annex</th>
<th>Requirement</th>
<th>Year</th>
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<tr>
<td>1.1.07</td>
<td>SOLAS 1974 Chapter II-1</td>
<td>Construction drawings on board and ashore Towing and mooring equipment Electrical equipment in hazardous areas</td>
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<td>1.1.07</td>
<td>A.744(18) – ESP surveys</td>
<td>Enhanced Programme of Inspections during surveys of double hull tankers</td>
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<td>1.1.07</td>
<td>MARPOL 73/78 Annex I</td>
<td>Pump Rooms to have double bottom</td>
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<tr>
<td>1.1.07</td>
<td>MARPOL 73/78 Annex II</td>
<td>Categorisation of Noxious Substances</td>
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<tr>
<td>1.8.07</td>
<td>MARPOL 73/78 Annex I</td>
<td>Oil fuel tank protection</td>
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<td>1.1.08</td>
<td>AFC 2001 (not in force yet)</td>
<td>Removal of organotin anti-fouling systems</td>
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<td>[1.7.08] contract</td>
<td>SOLAS 1974 Chapter II-1</td>
<td>Coating of ballast tanks</td>
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</table>

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IMO convention on ship recycling - approve and adopt 2008-9?

- New legally binding IMO instrument – Convention on recycling will provide regulations for:
  - Design, construction, operation and preparation of ships
  - The operation of recycling facilities
  - Ship recycling certification/reporting provisions

- Implications for shipbuilders from the initial design stage.

technology demands from changing trade requirements
**IACS** Container trades

- Ultra Large Container Ship – how big?
- Stack securing and use of High-Cube boxes
- Higher speed feedering?

**IACS** Cold climate energy trades

- Ice strengthening requirements ....

Photo courtesy Mærsk

Photo courtesy Keppel Singamarine
Cold climate energy trades

• Novel design concepts ...
... and winterisation considerations

Gas Carriers

• Larger LNGs
  – Propulsion options
  – Containment system selection
  – Cargo sloshing

• CNG
• Hydrates
Passenger

- Passenger safety and ‘the WOW factor’
- Regulatory challenge
- Maybe some new markets?

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