

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

JT03219605

IACS	
SAFER SHIPPING	<p>A view on world shipbuilding to 2015 and some technical challenges that may arise</p> <p>OECD workshop 18-19 December 2006 Paris</p> <p>Tim Kent Lloyd's Register on behalf of International Association of Classification Societies</p> <p>OECD Workshop 18-19 Dec 06</p>

IACS	Summary
SAFER SHIPPING	<p>Presentation in two parts</p> <ul style="list-style-type: none">• An independent view on world shipbuilding to 2015<ul style="list-style-type: none">- Development of global building capacity- Contracting demand by shiptype• Some technical challenges arising<ul style="list-style-type: none">- Through impending regulation- Through trading requirements <p>OECD Workshop 18-19 Dec 06</p>

IACS

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

SAFER SHIPPING

OECD Workshop 18-19 Dec 06

IACS

World shipbuilding capacity to 2015

Shipbuilding Market Shares
 (as at September 2006)

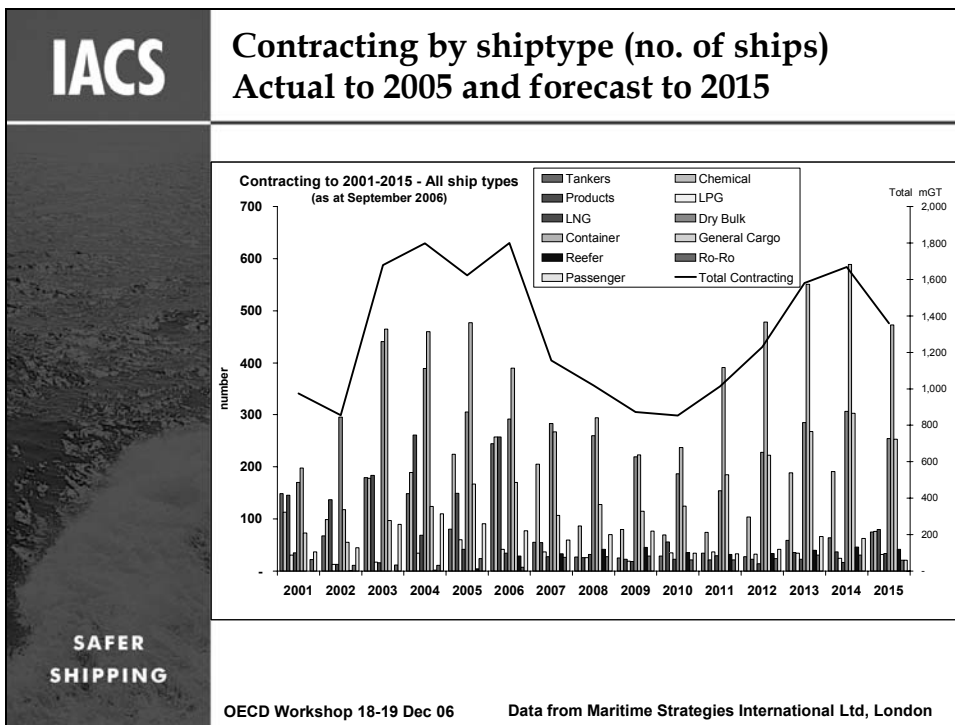
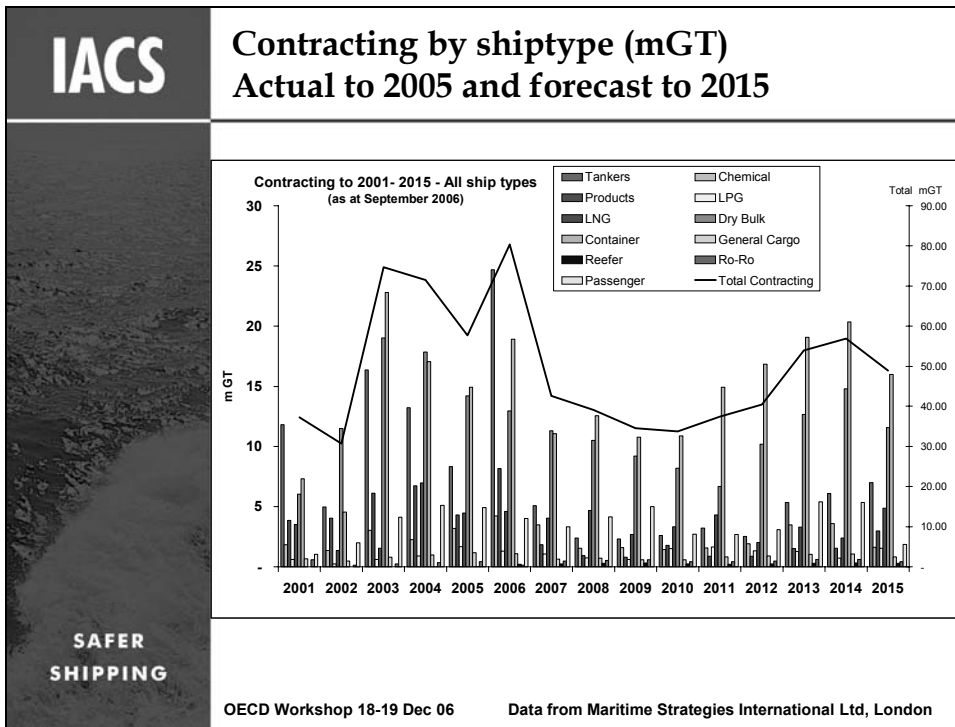
Yard Capacity: Japan
 Yard Capacity: S.Korea
 Yard Capacity: China
 Yard Capacity: W.Europe
 Yard Capacity: E.Europe
 Yard Capacity: N.America
 Yard Capacity: Other

Year	Japan	S.Korea	China	W.Europe	E.Europe	N.America	Other
1990	5	2	1	1	1	1	1
1995	6	3	2	2	2	2	2
2000	7	4	3	3	3	3	3
2005	8	5	4	4	4	4	4
2007	10	8	6	6	6	6	6
2010	12	10	8	8	8	8	8
2015	14	12	10	10	10	10	10

SAFER SHIPPING

OECD Workshop 18-19 Dec 06

Data from Maritime Strategies International Ltd, London



IACS	
SAFER SHIPPING	<p style="text-align: center;">technology demands for the future</p> <p>OECD Workshop 18-19 Dec 06</p>

IACS	Some technology challenges
SAFER SHIPPING	<ul style="list-style-type: none">• Competing in an increasingly competitive market<ul style="list-style-type: none">– More of the same ... but quicker, better, cheaper, etc.– Business as usual• New regulation compliance<ul style="list-style-type: none">– Some examples• New trading requirements<ul style="list-style-type: none">– Some examples <p>OECD Workshop 18-19 Dec 06</p>




IACS	
SAFER SHIPPING	<p>technology demands from changing regulation</p> <p>OECD Workshop 18-19 Dec 06</p>

IACS	IMO FORTHCOMING LEGISLATION due for 2007-8			
SAFER SHIPPING				
	1.1.07	SOLAS 1974 Chapter II-1	Construction drawings on board and ashore Towing and mooring equipment Electrical equipment in hazardous areas	N
	1.1.07	A.744(18) – ESP surveys	Enhanced Programme of Inspections during surveys of double hull tankers	E
	1.1.07	MARPOL 73/78 Annex I	Pump Rooms to have double bottom	N
	1.1.07	MARPOL 73/78 Annex II	Categorisation of Noxious Substances	N/E
	1.8.07	MARPOL 73/78 Annex I	Oil fuel tank protection	N
	1.1.08	AFC 2001 (not in force yet)	Removal of organotin anti-fouling systems	N/E
	[1.7.08] contract	SOLAS 1974 Chapter II-1	Coating of ballast tanks	N
	OECD Workshop 18-19 Dec 06			

IACS	IMO convention on ship recycling - approve and adopt 2008-9?
SAFER SHIPPING	<ul style="list-style-type: none">• New legally binding IMO instrument – Convention on recycling will provide regulations for:<ul style="list-style-type: none">– 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. <p>OECD Workshop 18-19 Dec 06</p>

IACS	
SAFER SHIPPING	<p>technology demands from changing trade requirements</p> <p>OECD Workshop 18-19 Dec 06</p>

IACS	Container trades
SAFER SHIPPING	<ul style="list-style-type: none">• Ultra Large Container Ship - how big?• Stack securing and use of High-Cube boxes• Higher speed feeding?    <p><small>Workshop</small></p> <p><small>Photo courtesy Maersk</small></p>

IACS	Cold climate energy trades
SAFER SHIPPING	<ul style="list-style-type: none">• Ice strengthening requirements    <p><small>OECD Workshop 18-19 Dec 06</small></p>

IACS**Cold climate energy trades**

- **Novel design concepts ...
... and winterisation considerations**

SAFER
SHIPPING


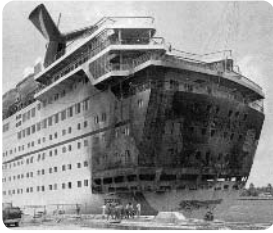

OECD Workshop 18-19 Dec 06

IACS**Gas Carriers**

- **Larger LNGs**
 - Propulsion options
 - Containment system selection
 - Cargo sloshing
- **CNG**
- **Hydrates**

SAFER
SHIPPING

OECD Workshop 18-19 Dec 06

IACS	Passenger
SAFER SHIPPING	<ul style="list-style-type: none">• Passenger safety and 'the WOW factor'• Regulatory challenge• Maybe some new markets?   

IACS	
SAFER SHIPPING	<p>A view on world shipbuilding to 2015 and some technical challenges that may arise</p> <p>OECD workshop 18-19 December 2006 Paris</p> <p>Tim Kent Lloyd's Register on behalf of International Association of Classification Societies</p> <p>OECD Workshop 18-19 Dec 06</p>