“BIGGER AND BETTER?
CHALLENGES OF
SUPERSIZED VESSELS AND
FULLY AUTONOMOUS
OPERATION”

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HFW LLP
Andrew is a former Royal Navy officer and specialises in "wet" shipping cases, including salvage, collisions, fire and explosion, total loss and wreck removal. He also advises on both civil and criminal pollution liabilities, marine insurance coverage disputes and the full range of other shipping-related commercial and contractual disputes. Andrew served at sea with the Royal Navy and also had a stint with the Hong Kong Squadron. He left the Royal Navy in 1990 and joined HFW in 1994, having trained at Richards Butler (now Reed Smith).

He was promoted to partner in 2003 and has been heavily involved in many of the largest casualties of recent years, including, "BP THUNDERHORSE" (2005), "MSC NAPOLI" (2007), "MSC CHITRA" (2010), "COSTA CONCORDIA" (2012), "FLASH" (2012), "KULLUK" (2012), "SMART" (2013), "NORMAN ATLANTIC" (2014), "MAERSK SEOUL" (2015), "CHARLTON" and "BURGOS" (both in 2016). Andrew lectures regularly on salvage, wreck removal and casualty response and is an acknowledged expert in the field.

Andrew is consistently ranked in the top tier for Shipping in Chambers and Legal 500 and "what he doesn't know about shipping isn't worth knowing" (Chambers UK 2017). Andrew is qualified in England and Wales.
• Context – ever larger and untested ships – mega container vessels, VLBC, cruise ships, other “supersized” marine assets
  – MSC NAPOLI / MSC CHITRA / RENA – US$300m – US$500m ea
  – COSTA CONCORDIA – US$2 billion
  – 20,000 TEU and beyond

• Political/Legal, Environmental and Technical Challenges

• Other trends: a perfect storm?
  – Decline of global salvage industry
  – Ports of refuge
  – Wreck Removal costs rising exponentially
  – Global recession, ever larger and untested ships, environmental concerns, increasing public and govt. awareness of casualties, zero tolerance from coastal states
# Container Ship Comparison

<table>
<thead>
<tr>
<th></th>
<th>NAPOLI</th>
<th>CHITRA</th>
<th>RENA</th>
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<tbody>
<tr>
<td><strong>Vessel dimensions</strong></td>
<td></td>
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<td>LOA</td>
<td>275.66</td>
<td>230.99</td>
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<td>13.02</td>
<td>12.00</td>
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<tr>
<td>Total containers</td>
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<td>Reefers</td>
<td>250</td>
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<tr>
<td></td>
<td>LUCIANA</td>
<td>EMMA MAERSK</td>
<td>TRIPLE E MAERSK CLASS</td>
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<tr>
<td><strong>Vessel dimensions</strong></td>
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<td>15.00</td>
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<tr>
<td>GT</td>
<td>131,771</td>
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<td><strong>Container capacity</strong></td>
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<tr>
<td>No. of Holds</td>
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<tr>
<td>Total containers</td>
<td>11,312</td>
<td>15,550</td>
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<tr>
<td>Reefers</td>
<td>960</td>
<td>1,286</td>
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• LOF? – best endeavours and risk
• SCOPIC
• Salvage or wreck removal? A "seamless transition"
• Salved Values of US$500m – US$1 billion and more = huge logistical challenges
• Near misses (MSC LUCIANA, CMA CGM LIBRA, UMM SALAL, CSCL INDIAN OCEAN, CSCL JUPITER) but commercial solutions won't always be available
• Rising claims and disproportionate clean up costs
• Port of refuge issues
• Huge political and logistical challenges, demarcation of responsibility between salvage and disposal of damaged/worthless cargo

• Increasing public awareness, social media, environmental lobby and Govt. management of casualties – the "NAPOLI" effect

• Port of Refuge concerns – NIMBY-ISM IS BACK! Echoes of the PRESTIGE. IMO Directives seemingly having little effect, took 6 weeks for POR for MSC FLAMINIA to be sorted

• Massive political challenges, e.g. MSC NAPOLI dealing with: consortium of 3 salvors; SOSREP; MAIB: MCA Counter pollution division; Portland and Weymouth Coastguard; The Environment Group headed by the Environment Agency; Marine and Fisheries Directorate; Natural England; East Devon Council; West Dorset Council; Devon and Cornwall Police; Health and Safety Executive; Department for Transport; DEFRA; Environment & Heritage Service (Northern Ireland)
TECHNICAL CHALLENGES
CONTAINER “HOSPITAL”
CARGO DEBRIS
LEARNING NEW SKILLS
BANG!
TOW TO BELFAST
ENVIRONMENTAL CHALLENGES

- Lost containers and cargo debris

MSC CHITRA

 Rena
• Uncertain legislative framework for clean-up operations of cargo washed up on beaches
• Where do salvors’ responsibilities end?
• Strict liability for owners?
• Clean-up claims subject to limitation of liability?
• Contractual clean-up v. responding to reimbursement claims from authorities?
• Dealing with dangerous goods and local authorities
• Pressure to remove all dangerous cargo as a priority
• Dangerous goods tend to be a focus of the media and authorities
• Potential lack of control through intervention of the authorities and an escalation of costs
• Certain jurisdictions will insist on military presence
ULTIMATE REMOVAL OF WRECK

• Complete removal required for MSC NAPOLI, COSTA CONCORDIA
• Partial Reduction negotiated for SMART
• BUT increasing zero tolerance from coastal states
ULTIMATE REMOVAL OF WRECK

- MSC CHITRA was taken out to sea and dumped
• **UNCLOS**
  – Article 210 - Requirement to adopt laws and regulations to prevent, reduce and control pollution by dumping – only permitted – "in an appropriate case"

• **London Dumping Convention 1976 and Protocol**
  – Protocol introduced a "precautionary" approach
  – Originally there was a list of materials which could be dumped – the Protocol is much more restrictive
  – Any application to dump must show full consideration given to re-use, offsite recycling, destruction of hazardous constituents
• **OSPAR Convention**
  – Geographical limits
  – General prohibition that Contracting States shall take all possible steps to prevent and eliminate pollution by dumping
  – 2 exceptions:
    • In case of force majeure when the safety of human life or of a vessel is threatened (Article 7) – Circumstances beyond the control of the party seeking to rely on the force majeure provision
    • In an emergency (Article 9)

• Political and bureaucratic
• VLBC also had plenty of issues – VALE BEIJING (2012), STELLAR DAISY (2017)
• SMART – Richards Bay 2013 – losses and claims in excess of US$150m
• Cruise Ships
• Other non-conventional marine assets
• Increasing public awareness, social media, environmental lobby and Govt. management of casualties – the "NAPOLI" effect
• Port of Refuge concerns – NIMBY-ISM IS BACK! Echoes of the PRESTIGE. IMO Directives seemingly having little effect
458 metres
Knock Nevis
Oil tanker

397 metres
Emma Maersk
Container ship

361 metres
Vale Beijing
Bulk carrier

345 metres
Queen Mary II
Passenger ship

341 metres
USS Enterprise
Aircraft carrier

VALE BEIJING
• Ran aground and capsized Friday 13 January 2012
• Extensive bunker removal operation, January-May 2012 (SMIT Salvage B.V.), followed by........
• Record breaking salvage (Titan Maritime LLC and Italian partners)
• May 2012 – September 2013, wreck brought upright
• On 23 July 2014, CC commenced its final journey under tow and a 14 ship escort at a speed of 2 knots to be scrapped in Genoa, where it arrived on 27 July. It remains moored at the port, awaiting dismantling processes
• Total cost circa US$2 billion cf cut up in situ costed at US$150m – US$200m
• Unsinkable…?
Shell’s Prelude FLNG
Bigger Than World’s Biggest Ship

PRODUCTION
- 300-350 crew members working in shifts
- 3.6 million metric tons/annum LNG production capacity

WHERE?
- The distance of the ship's working location from the nearest coast of Western Australia
- Approx. Time the facility would be moored in one location

FACTS
- 5 Soccer Fields back to back = Ship's Deck Area
- 50 million hrs. Water flow to be used for cooling LNG

Shell’s Prelude FLNG
Conclusion: A Perfect Storm?

- Are ships just too big? Issues reminiscent of late 60s/early 70s oil tanker casualties
  TORREY CANYON, AMICO CADIZ
- Port size/capacity
- Quality of seafarers – autonomous vessels, remote monitoring e.g. Carnival Corporation
- Increasingly demanding political and legal environment fuelled by social media
- Ever greater public scrutiny and awareness
- Potential for salvage on an epic scale = massive logistical challenges and correspondingly huge claims
- Salvage industry facing huge challenges

• Shipping will sooner or later face its "Deepwater Horizon" moment
CSCL INDIAN OCEAN
(2016)
"Cassandra Syndrome" has been coined to be a reflection of those who deliberately ignore warnings and predictions of any kind of impending trouble or doom because of disbelief, ignorance, scepticism, or just plain stubbornness.....