



HFW

LEGAL IMPLICATIONS OF AUTONOMY

BTA CONFERENCE

18 APRIL 2018

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LEGAL IMPLICATIONS OF AUTONOMY
HEADLINES

TUG TECHNOLOGY
& BUSINESS

Tugs will become autonomous

Is it time to talk about regulating autonomous ships?

NORWAY CREATES THE FIRST AUTONOMOUS MARITIME
TRANSPORT COMPANY

PORT
TECHNOLOGY

UK Secretary to Announce Autonomous
Maritime Revolution

SHIP

TECHNOLOGY

16 APRIL 2018 **NEWS**

**Peel Ports and ASV partner to integrate autonomous technology at
UK ports**

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**AUTONOMOUS
VESSELS - ARE
REGULATIONS
KEEPING UP WITH
INNOVATION?**



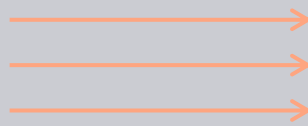

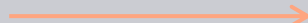

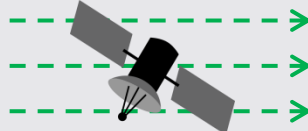

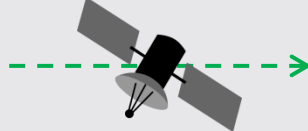



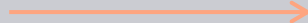

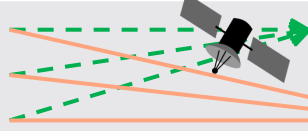
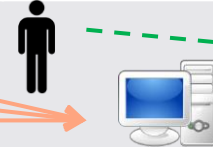


Reality is there are 1000s of unmanned surface vehicles operating (and remote-controlled)

- Inshore hydrographic surveys
- Wavegliders
- Towing minehunting sonars
- Launching and recovering ROVs

Most unmanned surface vehicles are less than 20m in length



- What do we mean by autonomy?
 - Legal framework today
 - Developments in the legal framework
 - Legal implications and the impact on tug and port operators
-

Vessel type	Input	Communication	Operator	Command	Response
Conventional	Radar ECDIS Visual		On board 		
Remote control	Radar ECDIS Visual		Ashore 		
Automated	Radar ECDIS Visual				
Autonomous	Radar ECDIS Visual				



Merchant Shipping Act 1995

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LEGAL IMPLICATIONS OF AUTONOMY
UNCLOS / SOLAS





Maritime Autonomous Systems Regulatory Working Group

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MARITIME SAFETY COMMITTEE

98TH SESSION

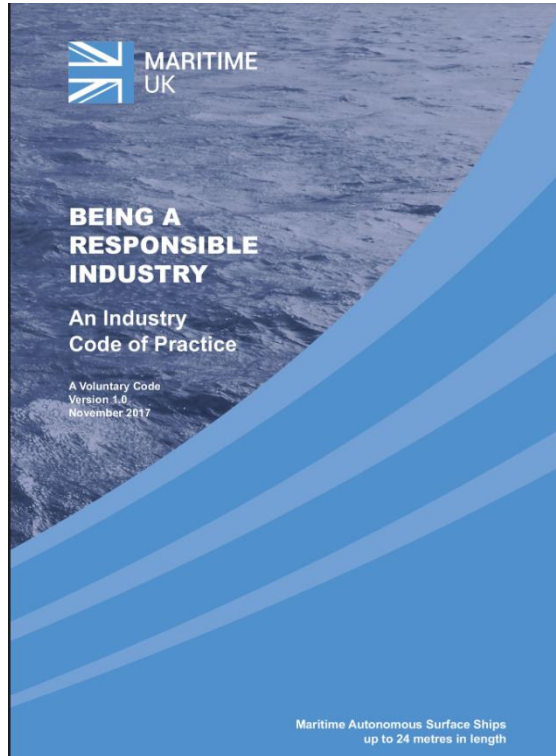
JUNE 2017

LEGAL IMPLICATIONS OF AUTONOMY
IMO SCOPING EXERCISE

Likely to take two sessions of the MSC

Existing international framework to remain intact

Regulatory framework unlikely to be in place before 2028



<https://tinyurl.com/ycowcene>

- Practical guidance
- Initial standards and best practice
- MASS up to 24m in length
- No legal status



LEGAL IMPLICATIONS OF AUTONOMY IMPACT ON TUG AND PORT OPERATORS

- STCW?
 - Skillset of tug masters?
 - Close cooperation between tug operators and ports
-



- **Non-contractual Liabilities:**

- Strict liability
- Tort of negligence
- UK Code of Practice?

- **Contractual Liabilities:**

- Contracts with manufacturers
 - Contracts between port and tug operators
 - Hold harmless provisions?
-

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BUT DON'T TAKE MY WORD FOR IT ...

BAE SYSTEMS



MAERSK



UK Marine
Industries
Alliance



Lloyd's
Register



ABS



Rolls-Royce®



WÄRTSILÄ

SVITZER



DNV-GL

CCS

CHINA CLASSIFICATION SOCIETY
中国船级社



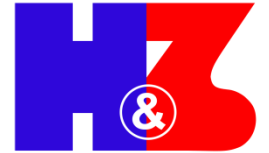
BOURBON



THALES



BUREAU
VERITAS



NYK LINE
NIPPON YUSEN KAISHA

KONGSBERG

ASV unmanned
marine systems



Schlumberger

inmarsat

AUTOMATED SHIPS LTD



DELTAMARIN™

QinetiQ



INTERNATIONAL
MARITIME
ORGANIZATION