



Training, Awareness & Human Factors



Session Moderator: Jordan Wylie
Be Cyber Aware At Sea Campaign



Panel of Experts



David Patraiko



Director of Projects



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CTO



Dr Alan Whitfield



**Cyber & Human Factors
SME**



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Managing Director





Definitions



Training

- The action of teaching a person or group of people a particular skill or type of behaviour (IMO 2004)

Awareness

- Knowledge that something exists or a basic understanding of a particular subject (WMU 2007)

Human Factor

- A complex issue affecting marine safety and security (IMO 2004)



Background Research Findings...



‘Cyber Security; The Unknown Threat at Sea?’

2014-2016, Coventry University, United Kingdom

Jordan Wylie – Masters Thesis

Research Kindly Supported By:





Catalyst for Be Cyber Aware At Sea



Resources Aimed at Humans

www.becyberawareatsea.com

Posters – Videos – Guidance – Articles – Newsletters



The Future of Shipping...



- Digitisation
- Automation
- Onboard Connectivity
- Optimisation
- Remote Monitoring Systems
- Maritime Big Data Analytics
- Internet of Things (at Sea)





It Sounds Complicated – What Does It All Mean?



- Speed
- Efficiency
- Cost Reductions
- Better Communications
- Smoother Business Transactions
- Better Performance
- More Advanced Technology





This Sounds Perfect – What’s the Problem Then?





What About Our People Though?

Shipping Industry Relies On People:

- To design ships
- To build ships
- To crew ships
- To operate ships
- To maintain ships
- To manage ships





What About Our People?



- Shipping is an industry by the people for the people
- People make the maritime industry run successfully, seafarers at the heart of shipping
- Technology advancing rapidly, significant changes coming, we must not neglect our greatest asset, if we do they will become our biggest vulnerability – **especially where cyber and technology is concerned!**



Question Time: What Does the Panel Say?



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Panel Question 1

Human factors have been long identified as the main source of safety (and security) related incidents at sea.

Given this is a widely accepted statement; why is it that where cyber security is concerned; ship owners are not investing in their people just yet?

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Panel Question 2

Lots of (very good) guidelines have been produced that are being used to help educate industry, there seems to be many in circulation though at present; is there a danger of confusing people with information overload?

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Panel Question 3

Dr Alan Whitfield:

From your work and extensive experience across various industry sectors;

1. What do you see as the major aspects and trends in human factors in Cyber Security and do they apply equally in our Maritime sector?
2. Secondly what is being done to combat human related vulnerabilities?

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Questions?