

Proposal to modernise the Methodology of Teaching, Assessment/ Examination

Nautical - STCW II/ 1 CoC	Name of respondent, organisation and role:		
Competency/ Module: Marine Emergency Response and Communication			
Knowledge, understanding and proficiency	Recommendation of working group regarding the outcome and objective.	Rationale	Action required
Outcome 1: Explain how to respond to distress signals in a maritime situation.	Contextualise	It is important to make sure Cadets clearly understand how the outcome relates to work at sea and it is essential to make sure that this context is given with reference to current and future seagoing technologies and practices.	Suggest “Talks from industry representatives with experience of emergency response situations” as a teaching method.
1.1 Distress, urgency, and safety signals A. Annex IV International Regulations for Preventing Collisions at Sea. SOLAS, B. IAMSAR Manual. Annual Summary Admiralty Notice to Mariners- Notice No.4 C. Ships in distress, Statutory Distress Signals, EPIRBs and SARTs D. Radio watch for and reception of distress signals E. Sunken submarine F. Aircraft casualties at sea	Keep	Relevant	None

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<p>G. RT Distress procedure</p> <p>H. Instructions to lookouts</p>			
<p>1.2 How to communicate with the distressed craft in accordance with International Regulations and procedures.</p> <p style="margin-left: 20px;">A. Action on receiving a distress signal</p> <p style="margin-left: 20px;">B. Recording the distress message</p> <p style="margin-left: 20px;">C. IAMSAR manual: communications</p>	<p>Modernise</p>	<p>We need to provide more formal guidance on other approved legislation other than IAMSAR for aircraft casualties at sea.</p>	<p>Include understanding of the details from Annex 12 to the Convention on International Civil Aviation - Search and Rescue (Chapter 5 and Appendix).</p> <p>There are also ongoing discussions within IMO regarding provision of more guidance on this topic that will be included in the future syllabus.</p>

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<p>1.3 How to obtain information on the position and nature of the distress</p> <ul style="list-style-type: none"> A. Components of the distress message B. Identification, position, nature, and kind of assistance required C. Other information D. Technique of homing on radio signals 	Keep	Relevant	<p style="background-color: yellow;">Provide clarity on the technique of homing on radio signals, this applies for shore-based search and rescue facilities, and the use of SARTs.</p>
<p>1.4 The further action required to comply with contingency planning and master's instructions</p> <ul style="list-style-type: none"> A. IAMSAR manual: Action by assisting ships B. Immediate action C. Proceeding to the area of distress – On board preparation D. Aircraft casualties at sea E. Follow a contingency plan 	Keep	Relevant	None

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<p>1.5 Planning and preparation for a search</p> <ul style="list-style-type: none"> A. Categories of distress incidents: Coastal and ocean B. Abbreviations, terms and definitions C. Communications: internal and external D. Co-ordination of search and rescue operations E. Designation of SMC and OSC and their responsibilities F. Responsibility of other craft in the co-ordinated search G. Search patterns taking into account drift, leeway, visibility and type of assistance available H. Drift patterns of disabled vessels with relation to wind and currents I. Rendezvous J. Establish a datum point before commencing search pattern K. Contingency planning and training 	<p>Modernise</p>	<p>Contextualise to show how a search would be planned and prepared for practically on board.</p> <p>Currently this learning is very theoretical and does not bring the practical side into the candidate's journey.</p>	<p>This could be modernised by use of the Simulator to assess students understanding of planning of search patterns for a given scenario.</p>
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<p>1.6 How to conduct a search</p> <ul style="list-style-type: none"> A. Proceeding to the area of distress B. On board preparation C. Action by assisting ships D. Approaching the scene, radar search E. Arrival on scene, implement search plan F. Assistance by SAR aircraft G. Homing on radio signals H. Aircraft casualties 	<p>Modernise</p>	<p>Contextualise to show how a search would be planned and prepared for practically on board.</p> <p>Currently this learning is very theoretical and does not bring the practical side into the candidate's journey.</p>	<p>This could be modernised by use of the Simulator to assess students understanding of planning of search patterns for a given scenario.</p>
<p>1.7 How to conduct a rescue:</p> <ul style="list-style-type: none"> A. When survivors in the water/boats/rafts B. From ditched aircraft C. Fire D. Heavy weather E. Evacuation by helicopter 	<p>Modernise</p>	<p>This needs to be broadened to include Mass Casualty/ Migrant Rescue situations.</p>	<p>Add Mass Casualty/ Migrant Rescue situations to this outcome (The MCA's intention is to raise this in the IMO STCW Review).</p>

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<p>1.8 How to terminate SAR operations</p> <p>A. Care of and questioning of survivors</p> <p>B. Decision to terminate, factors to consider</p> <p>C. Reports to authorities</p>	<p>Keep</p>	<p>Relevant</p>	<p>None</p>
<p>1.9 The general arrangements for search and rescue:</p> <p>A. The global maritime distress and safety system</p> <p>B. In addition to ships, the assistance which may be given by authorities around the coast of the United Kingdom</p> <p>C. Ships' position and reporting systems</p>	<p>Keep</p>	<p>Relevant</p>	<p>None</p>

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<p>1.10 The obligations and responsibilities for assistance at sea and the action to be taken to render assistance</p> <ul style="list-style-type: none"> A. IAMSAR Manual – Annual Summary of Admiralty Notices to Mariners -Notice 4 B. Consultation with other stations answering the distress C. Legal obligations D. Exemptions from answering a distress E. Logbook entries 	<p>Modernise</p>	<p>This needs to be broadened to include Mass Casualty/ Migrant Rescue situations.</p>	<p>Add the legal obligations of Mass Casualty/ Migrant Rescue situations to this outcome (The MCA's intention is to raise this in the IMO STCW Review).</p>
<p>Outcome 2: Describe IMO approved communication procedures used to avoid misinterpretation at sea.</p>	<p>Keep</p>	<p>Relevant</p>	<p>None</p>
<p>2.1 IMO standard marine communication phrases</p>	<p>Keep</p>	<p>Relevant</p>	<p>None</p>
<p>2.2 International code of signals</p>	<p>Keep</p>	<p>Relevant</p>	<p>None</p>
<p>2.3 Radio distress communication procedures</p>	<p>Keep</p>	<p>Relevant</p>	<p>None</p>
<p>Outcome 3: Transmit and receive information by visual means, as directed by the International Code of Signals</p>	<p>Modernise</p>	<p>Advice from the industry consultation has indicated that further guidance required for the level to which this outcome should be taught.</p>	<p>Provide further guidance in the academic guidance document to bring in line with the baseline requirements of STCW: "Ability to transmit and receive, by Morse light, distress signal SOS as specified in Annex IV of the International Regulations for</p>

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			Preventing Collisions at Sea, 1972, as amended, and appendix 1 of the International Code of Signals, and visual signalling of single-letter signals as also specified in the International Code of Signals"
3.1 Send and receive signals using Morse code by means of flashing light	Modernise	The requirement for a signals certificate to be issued in the 3 years prior to a CoC should be reviewed.	A review of signals certificate outcome should be undertaken looking into relationship between Signals Certificate and CoC
3.2 Send and transmit signals using the International Code of Signals	Keep	Relevant	None
Proposal submitted by:	Any other outcomes for this competency, above and beyond STCW which would be needed due to use of modern technology and impact of future fuels onboard:		
	Objective	Reason Why	Action required
Cadet Training & Modernisation Working Group	Include Human Element Factors throughout the syllabus	To provide seafarers with a contextualised understanding of the Human Element in the maritime industry, showing how they can put theory into practice in the work they carry out at sea.	<p>Explore how training can go out the window under stress but drills are a good way to ingrain the correct procedure.</p> <p>Include a general awareness about the impact of stress (and other factors) on cognition, perception and decision making - somewhat covered in HELM.</p> <p>Consider the SUGAR model from MCA's behaving safely, or equivalent.</p> <p>Explore basic techniques to reduce the impact of these - e.g. slow down, evaluate options, communicate with others. MCA's Leading for Safety (soon</p>

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			<p>to be published) has useful tips but may be too prescriptive</p> <p>Raise awareness throughout the Cadet's training of the areas in which human element factors will have an impact. Recommendations on where this can be included have been noted throughout the entire syllabus. Not every template has Human Element Factor recommendations but please do add any you feel may have been missed.</p>
Cadet Training & Modernisation Working Group	Include Data Science skills throughout the syllabus	Data Science Skills (Comprehension, Analysis, Presentation, etc...) are already required within much of the syllabus. A further, specific focus on these skills needs to be taught where relevant.	A specific topic will need to be introduced to improve Cadets' Data Science skills. Practical application of data science skills should be highlighted throughout the syllabus. Not every template has Data Science recommendations but please do add any you feel may have been missed.
Cadet Training & Modernisation Working Group	Ensure all outcomes are contextualised to help Cadets understand what they are learning in relation to what they will experience at sea.	While some outcomes are intrinsically linked to work carried out at sea, some need to be contextualised to show how they apply to work on board. Where this is the case, it is important to make sure Cadets clearly understand how the outcome relates to work at sea and it is essential to make sure that this context is given with reference to current and future seagoing technologies and practices.	Where outcomes do not specifically cover a topic which relates to work carried out at sea, more must be done to contextualise the outcome and make it relevant to the maritime industry, giving specific shipping examples of how the outcome may be applied in a modern shipping context. Not every template has contextualisation recommendations but please do add any you feel may have been missed.