Role	Deck Cadet	Marine Manager	Chief Mate	Deck Officer Cadet
Organisation	N/A	Utilities Company	Towage	International Shipping Company
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	(1.5)As it is my understanding paper charts are to be phased out in the coming years and no new ones are on the line to be published. Since the removal of paper charts is almost guaranteed in this modern world I feel that a cadet isn't obliged to have the knowledge on how to update old charts and should mainly focus on having the ability to use an ECDIS . (1.6) The same reason as before, a focus on electronic charts rather than paper.	#N/A	Most vessels (particularly smaller work boats which the majority of British merchant seafarers now work on) do not have the capacity for full ECDIS and therefore still carry paper publications and charts. Therefore I still believe it is necessary for cadets to understand the methods of correcting paper publications and the requirement for having these on-board.	Outcome 1.4: The need to teach how to procure charts for ships is something I believe is essential to teach because it enables a good understanding of 2nd officer (or whoever the passage planning navigator on that ship may be) duties before going to sea. Most vessels no longer use paper charts, but those fundamentals should be taught because they enable a better understanding of ECDIS navigation/electronic chart acquisition.
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. We agree with your suggestions and believe they have been covered within our proposals.	#N/A	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on the focus shift to the primacy of ECDIS has been supportive.	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal.
Your Feedback - Outcome 2	I mainly agree with most of these but a focus on how to apply these on electronic charts should be the focus.	2.0 Paper charts should be same focus	#N/A	Outcome 2.2: As you've mentioned, using paper charts as a teaching aid is still essential. Therefore, I believe the need first to teach position plotting, as well as courses to steers, counteracting triangles, ranges and bearings etc on paper charts is essential. This is because working on paper charts enables a greater understanding of the principles and what the ECDIS/ENS would be doing, instead of just seeing some lines and numbers on a screen.
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted and we are in agreement.	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support to move the focus onto electronic resources. However, basic paper chart skills will still be part of the curriculum.	#N/A	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support to move the focus onto electronic resources. However, basic paper chart skills will still be part of the curriculum.
Your Feedback - Outcome 3	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	#N/A
Your Feedback - Outcome 4	A full redesign of this subject should be encouraged as some tidal subjects such as [Secondary Ports / Pacific Ports] don't really remain relevant for a cadet. Still a cadet should be able to learn the skill to calculate tidal time and height but to a lesser degree than the current situation.	#N/A	#N/A	#N/A

Role	Second Officer	Deck Cadet	2nd Officer	Chief Officer
Organisation	National Shipping Company	Maritime Charity	Ferry	Freelance
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	1.8 - all ships I have been on use a digital chart management service to catalogue, maintain and order charts. Publications such as ALRS, ALLs are almost universally the e-publication digital versions. I believe training should be given in an introduction to the various commercial systems in use, such as OneOcean, so that cadets can continue their familiarisation training in paper chart management when they get onboard.	Regulations should be in place to ensure the standard and quality of college simulator ECDIS's. Standards should also be put in place to ensure that most large brands are covered. 1.4 Although I don't disagree, informing cadets of how to order/select new regions/charts on the ECDIS should be covered.	1.3 - it is essential to ensure that cadets present and future are able to maintain a portfolio of charts. The admiralty announced an extension of the withdrawal to 2030, it would not be fair to the OOWs of the future to not teach them how to maintain a portfolio. 1.4 - this is not redundant. We still use a chart supplier and order licences for new charts through them. Again, it is essential to ensure cadets are in theory ready to join the industry. A better option would be to get cadets using an ecdis system during phase 1 along with an introduction to paper charts, especially as it is becoming the more widely used system and they are for certain vessels required by SOLAS.	Renaming it Electronic chartwork & tides is of no real benefit. YES introduce electronic chart systems earlier. Paper Charts ARE crucial to the Industry, not just for cadets and not just as a back up option. Not all vessels have electronic charts!!
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. While we agree that digital chart management should be covered within this outcome, we currently look to teach the principles of ECDIS as opposed to type specific training to give a base level of knowledge.	Thank you for your feedback, it has been noted. Please be assured that MCA approved Nautical Colleges are required to meet the appropriate simulator specification standards. We currently look to teach the principles of ECDIS as opposed to type specific training to give a base level of knowledge. In addition, ECDIS type specific training remains a requirement. We are in agreement with your suggestion for 1.4 and this will be included in the syllabus in 1.8	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal. Additionally, we believe that an introduction to paper charts has been covered by our suggestion to teach paper charts to a level that would allow them to be used and kept up to date as a contingency.	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on the focus shift to the primacy of ECDIS has been supportive.
Your Feedback - Outcome 2	2.1 I don't think it's necessary to practice navigation on projections other than mercator. Realistically, all navigation is done on mercator projections. But I agree that chartwork techniques should be practiced on ENCs/simulator such as VRM/EBL. 2.2 Yes, training must include how to manually fix a position using visual and radar observations and other means.	2.1 Distortion of charts should still be explained. Explanation of how ECDIS and electronically stitched maps overcome this. 2.6 Explanation of how this is projected on to ECDIS should be covered.	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. Regarding outcome 2.1, we are in agreement. Other projections do not need to be covered in this module, instead they should be taught in outcome 1.1 - types of charts. Regarding outcome 2.2, many thanks for your feedback, it has been noted.	Thank you for your feedback, it has been noted. We are in agreement with both of your comments and these have been covered by the recommendations to outcome 2.	#N/A	#N/A
Your Feedback - Outcome 3	#N/A	3.1 Include ECDIS safety checks	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	Thank you for your feedback, it has been noted. Please may you provide more information to your feedback. Are you referring to ECDIS self-check (performance test) or safety parameter route checks (Look ahead function, safety depth, safety contour, etc...)? If this is what you are referring to, they are already covered.	#N/A	#N/A
Your Feedback - Outcome 4	#N/A	#N/A	#N/A	#N/A

Role	Deck Cadet	Crew Operator/Training Officer	Lecturer	OOW Unlimited (Deck)
Organisation	International Shipping Company	International Shipping Company	Unitversity	Maritime Charity
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	1.4 ordering publications still occurs and should be kept 1.5 corrections are automatic perhaps training in ensuring chart corrections on Ecdis occur	#N/A	I agree that ECDIS should be taught more, as part of the chart work classroom lessons, over a few months. That way, cadets will learn ECDIS far better than in a short one week course. However, many cadets work on smaller ships – especially off shore support vessels and ferries - that use 1 ECDIS and paper charts. Hence paper charts as well as ECDIS should be retained in the syllabus. Removing 1.3 (storage and handling of charts) and 1.4 (ordering charts and publications) is a bad idea. Rather, both should be retained, and renamed "1.3 - storage and handling of charts, including electronic charts" and "1.4 – ordering electronic charts and digital publications". This is because some ships (mentioned earlier) keep,	1.4 Ordering charts and publications is still a duty of a deck officer, despite it being a small part and I recommend being amended to modern times with there being less paper copies required. When using ECDIS systems especially you are still required to order charts, whether it be through an agent or not, as well as when publications are being updated they need to be renewed and the importance of that needs to be conveyed.
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. We appreciate your point of view for 1.4. However, the majority of feedback that we have received on this outcome has indicated support for its removal. Additionally, we agree with your suggestion for 1.5 and believe it is covered within our proposal.	#N/A	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal. Additionally, we believe that an introduction to paper charts has been covered by our suggestion to teach paper charts to a level that would allow them to be used and kept up to date as a contingency with your suggestions for 1.3 and 1.4 being covered by 1.8.	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal.
Your Feedback - Outcome 2	#N/A	It is important Cadets are trained in the differences between and principles of Mercator and Gnomic chart projections regardless of whether they are electronic or paper	Some chartwork methods - example running fix - are not possible to accomplish on certain ECDIS models (example - Kongsberg). Hence, it would be better to first physically verify whether lecturers in the four major maritiem colleges of the UK are actually able to achieve this in classroom in their institutes on te ECDIS that they currently have. Some have Transas (which allows most of these functions to be done), however, some institutes have other ECDIS models which may not allow these activities to be done.	#N/A
Sub-Group 1.2 Response	#N/A	Thank you for your feedback, it has been noted and we are in agreement.	Thank you for your feedback, it has been noted. This has certainly been taken into account and this modernisation is being undertaken with input from the major maritime colleges. We are looking to set the standard to the appropriate level and then meet the capability requirements to achieve those standards, as opposed to the other way round.	#N/A
Your Feedback - Outcome 3	#N/A	#N/A	SEEMP has very little to do with passage planning. It is best not to confuse cadets with this. We must remember that cadets - even at phase 5 - have barely spent one year at sea, and as such are still getting their sea legs. Some cadets don't even manage that - and if the silly idea of substituting sea time with simulators gets approved, we will end up in a severely inadequate fleet of officers who have not even been sailing for 12 months.	#N/A
Sub-Group 1.2 Response	#N/A	#N/A	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its inclusion.	#N/A
Your Feedback - Outcome 4	4.2 who still undertakes manual tidal calculations rather than just search electronically the tide	Whilst the theory of tide calculations is important, manual calculations of any tide are near enough pointless in a world of shipping where computers have numerous back ups of admiralty tidal programs.	Agree - however, Admiralty should provide a Free Training version of Total Tide, so that cadets can practice on it with the same ease that they currently use the training versions of tide tables. Also, accessing total tides is inconvenient on many ships, when the software is on the bridge four deck up, there is no elevator, and the 2/Off is on deck and in ships office. At such times, most 2nd officers prefer to directly use the tide tables - as it takes then just 10 minutes to calculate tides. Even lesser if the vessel is in a primary port. Hence, Total Tide should be included, but existing tide calculations of primary and secondary ports should also be retained. The graph can however be done away with, as these are only available for UK in the tide	#N/A

Role	Cadet Manager	Vice President	Chief Officer	First Officer
Organisation	Maritime Charity	International Shipping Company	Maritime Charity	International Shipping Company
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	Retain publications such as Pilot Books - If electronic format Okay. - The use of these publications as reference is still important.	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. It is intended that publications will still be taught with a main focus on electronic publications.	#N/A	#N/A	#N/A
Your Feedback - Outcome 2	Teach on electronic charts yes - but insist that the the final 3 months onboard a ship must be spent on the bridge as an understudy to an officer. Allow the student to practice under supervision onboard ship. This might mean INCREASING Sea time to 15 months with the last 3 months spent entirely on the bridge and deck as an understudy to an officer, - This is not happening on a number of ships.	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. However, this consultation is not currently looking at the seagoing service of Cadets. Your feedback has been noted and fed into any future pieces of work to which it may be relevant.	#N/A	#N/A	#N/A
Your Feedback - Outcome 3	The principles of passage planning should not change. The use of weather routing is important A number of oil companies are now monitoring the ships voyage very closely (BP & Maersk). They question if the Master has to slow down or alter course. How long before the office send the Master a passage plan ? The ships Energy Efficiency Manage Plan is to improve hull design and machinery operations thus reducing CO2 emissions .This should be a separate subject taught in the classroom.	#3.1 - No should not be limited to SEEMP, eg Environmental, Voyage optimization - sustainability	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. We can reassure you that we are not suggesting to remove the principles of passage planning, including weather routeing, only enhance them by including SEEMP at a basic level.	Thank you for your feedback, it has been noted. We are in agreement with your feedback and this will be reflected in the updated module template.	#N/A	#N/A
Your Feedback - Outcome 4	The use of admiralty tide table should be taught in the classroom and on simulators but ALSO the Cadets must practice onboard the ship. Possibly another in depth item in the TRB requiring written examples as proof.	#N/A	Tidal calculations are essential for a navigator and this should remain in the syllabus however some teaching of tidal prediction software should be covered	#N/A

Role	Master	Navigating Officer	Maritime Standards Manager	Master
Organisation	Crewing Agency	International Shipping Company	Government Regulatory Body	International Shipping Company
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	All cadets must know the basics of handling paper charts.	Ordering charts can be a minefield and the difficulty in understanding between holding the chart + permit + licence for ECDIS; should focus solely on Electronic. Chart catalogues are essentially pointless, you order whatever you need.	1.0 I do not agree with the renaming as it devalues paper charts which will remain in use until at least 2030 , suggest Chartwork (including electronic chartwork) and Tides 1.1 I disagree that 'most' teaching needs to be on electronic charts. the standards of competence using paper charts must be retained. 1.2 whilst electronic versions of charts and publications needs to be included I am not coinvinced that 'most training' needs to be on the electronic versions, 1.3.& 1.4 existing procedures on then handling and ordering of paper charts and publications are still used on some vessels (below the mandatory ECDIS requirements and need to be retained 1.6 & 1.7 agree that	1.3 & 1.4 Simple; not all vessel have dual ECDIS - such as mine - so paper chart folio still in place, and subsequent training, knowledge and competence required for Deck Officers.
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. Assuming your comment relates to the practical use of paper charts, we are in agreement and have reflected this in our proposals.	Thank you for your feedback, it has been noted. We are in agreement with your suggestion for 1.4 and this will be included in the syllabus under 1.8.	Thank you for your feedback, it has been noted. 1.0 We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for this change 1.1, 1.2, 1.6 & 1.7 We believe that the move to have most of the teaching on electronic charts is more representative of the current industry requirements. However, we appreciate there are still vessels using paper charts and, as such, have suggested that the basics are covered on paper charts and Cadets are appropriately trained to use them as a contingency. 1.3 & 1.4 With regards to ordering charts publications, we appreciate your point of view. However, the majority of feedback that we have	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal. Additionally, we believe that an introduction to paper charts has been covered by our suggestion to teach paper charts to a level that would allow them to be used and kept up to date as a contingency.
Your Feedback - Outcome 2	#N/A	A massive emphasis to be placed on how to determine your position in a spoofing/jamming situation and how to tell you are being spoofed/jammed. DR/EP use on ECDIS, what it actually looks like and how it can be affected.	2.0 I do not agree that there should be a reduced focus on paper although Electronic resources need to be included progressively once the cadet has gained experience at sea (including ECDIS Generic course) 2.1 not sure that the theory of Mercator projection and the examination thereof need to be supplemented by simulators, agree that a variety of projections should be included 2.3 Chart symbols need to be taught on both paper and electronic charts and recognition of both, including differences remains a requirement. 2.5 Techniques required to plot positions on paper charts and ECDIS are equally necessary and focus should not be unnecessarily tilted towards the latter.	#N/A
Sub-Group 1.2 Response	#N/A	Thank you for your feedback, it has been noted. We are in agreement and your suggestion has been included in Deck Module 12 - Passage planning, outcomes 2.7 and 3.4. Many thanks for your input.	Thank you for your feedback, it has been noted. Regarding outcome 2.0, the majority of Cadets are now sailing on vessels with no paper charts and, as such, it has been indicated that now is the right time to teach using electronic resources as the primary means of navigation. This has been supported by the feedback from this consultation. Regarding outcome 2.1, we believe that including simulators to help Cadets understand the properties of a Mecator chart in the way they will use them in practice will be beneficial. This has been supported by the feedback from this consultation. Regarding outcome 2.3, we are in agreement with your	#N/A
Your Feedback - Outcome 3	#N/A	#N/A	SEEMP introduction is a positive step.	#N/A
Sub-Group 1.2 Response	#N/A	#N/A	Thank you for your feedback, it has been noted.	#N/A
Your Feedback - Outcome 4	#N/A	Show the full capability of TotalTide software but emphasise that it is only a prediction.	4. The application needs to include both paper and electronic formats for the obtaining and calculating of tidal information 4.1 The theory of tides and their causes can continue to be taught as it is; it does not not need to be contextualised with respect to tidal software 4.2 The ability to carry out tidal calculations moth manually and using software are equally essential but understanding the principles is better using the ,manual version.	#N/A

Role	Retired mariner / surveyor	Retired mariner / surveyor	General manager - marine Assets	Director, Marine HR
Organisation	Consultant	Consultant	Marine Services	International Shipping Company
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	Outcome 1; Action required 2. "Restructure college delivery structure to provide more focus ..." consider changing to "structure to provide more and earlier focus...." i.e some basic training in Cadetship phase 1. Only then can all cadets get the same grounding in electronic charts. It is my experience that 1. initial grounding in anything is of great importance and 2. the electronic chart knowledge of deck officer possibly training these lads covers a very wide spectrum.	Outcome 1; Action required 2. "Restructure college delivery structure to provide more focus ..." consider changing to "structure to provide more and earlier focus...." i.e some basic training in Cadetship phase 1. Then all cadets get the same grounding in electronic charts. It is my experience that 1. initial grounding in anything is of importance and 2. the electronic chart knowledge of deck officer possibly training these lads covers a very wide spectrum.	The OOW once qualified, may take a role on a smaller vessel such as a workboats, CTVs etc. Paper charts are still an essential part of this sector. Although the change to paper charts is in progress, electronic charts will be primary source of navigation, paper charts will still be used.	Chartwork is still chart work whether in electronic format or not so am happy to maintain the chartwork name 1.4 Seafarers should still be familiar with ordering new areas and electronic publications
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. While we agree that it is important that to give Cadets an early introduction to electronic charts, we feel that the currently suggested wording is appropriate. This module is regularly taught in the early part of the Cadet training course.	Thank you for your feedback, it has been noted. While we agree that it is important that to give Cadets an early introduction to electronic charts, we feel that the currently suggested wording is appropriate. This module is regularly taught in the early part of the Cadet training course.	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on the focus shift to the primacy of ECDIS has been supportive.	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal.
Your Feedback - Outcome 2	#N/A	#N/A	#N/A	Agree with the above
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted.
Your Feedback - Outcome 3	#N/A	#N/A	#N/A	3.3 highlight the dangers of waypoint navigation and use of track control
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. We are in agreement with your suggestion, this was already covered in the Passage Planning II/2 module. However, we believe the human factors impacting outcome 3.3 should also be covered and, as such, we have added them to the template. Many thanks for your input.
Your Feedback - Outcome 4	#N/A	#N/A	#N/A	not sure what value simulators can play with tides but agree with the modernised approach of software utilisation once the basic manual theory has been covered.

Role	Marine Superintendent	Marine Superintendent	Navigational Assessor and Trainer	Second Officer
Organisation	Offshore Supply Services	Offshore Supply Services	Consultants	International Shipping Company
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	Deck Officers should still be able to order charts publications, or order passkeys for electronic charts or electronic publications.	Deck Officers still need to be able a chart / publication, even if its from an agent, Shipping companies rely more and more on the deck officers ordering charts, or licences to use charts.	1 I don't see any connotation of "dividers and rulers" in the original title and we need to include work on paper charts in any case, and this is accepted in what follows. 1.3 and 1.4 Many ships carry a "Get me Home" folio of paper charts and the handling / ordering of these needs to be understood. This could be combined with 1.8	Maybe think about what a newly qualified officer would actually struggle with. Talk about different chart suppliers, agents, etc. And particularly where to look to find the information you need.
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. With regards to ordering charts publications, we appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal. However, we are in agreement with your suggestion for electronic chart and publication processes and this will be included in the syllabus.	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal.	Thank you for your feedback, it has been noted. With regards to outcome 1. we appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its removal. 1.3 & 1.4, we believe this has been covered by our suggestion to teach paper charts to a level that would allow them to be used and kept up to date as a contingency.	Thank you for your feedback it has been noted. We are in agreement with your suggestion and believe it is reflected in our proposals.
Your Feedback - Outcome 2	#N/A	#N/A	We need to move towards the concept and teaching of "position verification" rather than "position fixing" with particular emphasis on the techniques which are most appropriate to this, particularly those 'real time' techniques, such as parallel indexing during passage and the use of head bearings and transits to steer on in passage planning stages. With the poor design of azimuth rings commonly fitted on modern vessels, plus the awkwardness of access and use of manual plotting facilities on some ECDIS, the idea of effective position fixing by some traditional methods becomes virtually impracticable. We need to concentrate on those that can be useful, given the design of current equipment.	I would say maybe include what happens on the ecdis if GPS signal is lost and DR and EP are used to determine your position. I.e. nobody uses charts but the background info is necessary, show how it applies to modern navigation.
Sub-Group 1.2 Response	#N/A	#N/A	Thank you for your feedback, it has been noted. We are in agreement that the concept will need to be moved from position fixing to verification using the best tools avaialable. The specifics mentioned throughout the rest of your comment are already covered across this module and the passage planning module.	Thank you for your feedback, it has been noted. We agree that this should be covered and is currently covered within the NEAST(O) and the ECDIS course.
Your Feedback - Outcome 3	#N/A	#N/A	We need to improve the standards of passage planning to what we were aspiring to achieve in the 1980's, following the introduction of the new subject of "passage planning" to the Master's Syllabus. Concepts such as amending course lines to make proper use of navigational features (e.g. head bearings) and techniques to reduce the chance of human errors in transferring information between platforms; chosing waypoints not for numerical convenience but for the avoidance of traffic conflict, and with due regard for distance from the grounding line in the event of breakdown, navigation in the vicinity of TSS and within TSS lanes, with regard to different vessel speeds; in-port passage planning,	Seemp is a good point but heavier focus on ecdis passage planning from an earlier stage, maybe phase 1. Phase 2 cadets are often asked to plan a passage, maybe a gentle introduction to the electric Enps and ADPs instead of the books, step by step checklists for how to conduct a passage plan as well as weather routeing.
Sub-Group 1.2 Response	#N/A	#N/A	Thank you for your feedback, it has been noted. We are in agreement with the overarching message of your feedback. We believe that the specifics mentioned throughout your comment are already covered across this module and the passage planning module.	Thank you for your feedback, we are in agreement.
Your Feedback - Outcome 4	#N/A	#N/A	#N/A	Use total tide as well as ecdis tides and current function to show how this affects passage planning, include weather passage planning, i.e tidal calculations with total tide to make certain ETA at pilot station.

Role	Deck Cadet	2nd Officer	Deck cadet	Cadet
Organisation	International Shipping Company	International Shipping Company	International Shipping Company	Marine Charity
Module	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides	Deck - Chartwork and tides
Your Feedback - Outcome 1	#N/A	1.4 - Still need to be aware of software available/used to order electronic charts.	I feel there is a case for removing outcomes 1.5 - 1.8 altogether. For example chart catalogues aren't used at sea in my experience - all vessels I've been on, they've had 2 ECDIS machines and just downloaded updates, no paper charts were carried at all. I welcome the idea of modernising to reflect the primacy of electronic resources, but feel it can go even further.	Electronic publications should be shown to cadets but physical publications are much easier for learning in a college based environment
Sub-Group 1.2 Response	#N/A	Thank you for your feedback, it has been noted. We are in agreement with your suggestion for 1.4 and this will be included in the syllabus under 1.8.	Thank you for your feedback, it has been noted. We appreciate your point of view, however, the majority of the feedback received has indicated support for keeping some element of teaching on paper charts rather than removing them all together.	Thank you for your feedback, it has been noted.
Your Feedback - Outcome 2	#N/A	#N/A	I feel there should be a reduced focus on Dead Reckoning, ETAs, manual fixing etc. These should only be taught as contingencies as they aren't routinely done at sea in my experience	#N/A
Sub-Group 1.2 Response	#N/A	#N/A	Thank you for your feedback, it has been noted and we are in agreement.	#N/A
Your Feedback - Outcome 3	3.3- Please introduce cadets to trial manoeuvre and temporary route features. They are present on most modern ecdis/radar displays and used frequently for quick and accurate planning before alterations of course to avoid traffic/weather while en route. Part of the Monitoring section of APEM?	#N/A	Energy efficiency shouldn't be part of the cadetship. If an employer wants to worry about Energy efficiency, this can form part of their policies, it doesn't need to be taught at cadet level	#N/A
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. We are in agreement with the overarching message of your feedback. We believe that the specifics mentioned throughout your comment are already covered in NAEST(O).	#N/A	Thank you for your feedback, it has been noted. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for its inclusion.	#N/A
Your Feedback - Outcome 4	#N/A	#N/A	#N/A	#N/A

Sub-Group 1.2 Response	Thank you for your feedback, it has been noted. We are in agreement that manual calculations should still be taught. However, there should be a greater emphasis placed on electronic resources.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Many thanks for your feedback, it has been noted. Please note that our recommendation suggests to place more emphasis on tidal software.	Thank you for your feedback, it has been noted. We agree that the emphasis should be moved towards tidal software. However, feedback to this consultation has shown support to keep the manual calculations as a contingency.	Thank you for your feedback, it has been noted. We are in agreement that manual calculations should still be taught. However, there should be a greater emphasis placed on electronic resources. Please note that all changes within this syllabus review will also be reflected within the assessment criteria.	#N/A	Thank you for your feedback, it has been noted. Upon completion of the Cadet Syllabus review, this working group will review the TRB and take this point forward into that review.	#N/A	Thank you for your feedback, it has been noted and we are in agreement.	#N/A	#N/A	Thank you for your feedback, it has been noted and we are in agreement.	Thank you for your feedback, it has been noted. We are in agreement that manual calculations should still be taught. However, there should be a greater emphasis placed on electronic resources. We appreciate your point of view. However, the majority of feedback that we have received on this outcome has indicated support for the inclusion of tidal software.	#N/A	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted and we are in agreement.	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted and we are in agreement. This is also covered in the Passage Planning module.	#N/A	#N/A	#N/A	#N/A
Your Feedback - Outcomes Above and Beyond	A key subject that seems outdated and time consuming for a cadet is Celestial Navigation. I don't propose to fully scrap the subject but tone it down to the very basics , not having to fully dive into detail since the methods used and applied are hundreds of years old and most vessels do not rely on them since 1950s. From experience a cadet would rather learn the rules of the road or the different buoys or all the important convections that relate to working at sea rather than having to learn the principle of a sextant or all the different calculations that are irrelevant in this modern day and age.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Agree - a detailed syllabus should be circulated in all maritime institutes (exactly like the one used in IMO model courses). Adding Human Element at this level, where cadets have barely been at sea for 1 year (12 months) is over kill. It will simply complicate matters. Let our cadets learn the basics first. They can be taught HE later, or as a short 2 hour topic. There is no need for it to overshadow other topics at the moment.	#N/A	#N/A	#N/A	#N/A	#N/A	Must all train some basic technical skill on PC problem solving.	BRM, leadership and management to be focussed on at every opportunity with human element.	I do not agree that Data Science Skills should be a separate topic or form part of assessment and examination of Cadets and Officers unless and until IMO introduces a specific change in STCW.	#N/A	#N/A	#N/A	#N/A	#N/A	Why would you want to ensure all outcomes are contextualised to help Cadets understand what they are learning in relation to what they will experience at sea, why use a fancy word like contextualised, if all you really want to do is give an example. Big words do not impress cadets trying to learn or their teachers, use simple English please. I.E. Ensure what you teach can be used in an example of what they experience at sea	Why are you using the word contextualised, when all you really mean is use an example. keep it simple keep it easy. Students and teachers do not need words which they wouldn't normally use everyday Example is good enough	#N/A	#N/A	Data science skills: Please include specific Microsoft Excel training. Every role in the deck department requires a working knowledge of Microsoft Excel, and most of my current cadet peers have never used Excel before.	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. However, celestial navigation is not included within this module and is, instead covered in the celestial navigation module. We have proposed appropriate modernisation to the relevant module which mostly aligns with your feedback.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Many thanks for your feedback. We can confirm that a detailed syllabus will be created in this process and circulated to nautical colleges. With regards to HELM, while we appreciate your point of view, it is part of an STCW requirement under resource and team management, so cannot and will not be removed. In addition, the general feedback from the working group and industry through this consultation has been that it should be included. As such, we will be enhancing it within the Cadetship syllabus.	#N/A	#N/A	#N/A	#N/A	#N/A	Many thanks for your feedback, it has been noted.	Many thanks for your feedback, it has been noted and we are in agreement.	Many thanks for your feedback. This is a topic which we are looking to introduce above an beyond the requirements of STCW, in order to future proof the skills of seafarers.	#N/A	#N/A	#N/A	#N/A	#N/A	Many thanks for your feedback, it has been noted.	Many thanks for your feedback, it has been noted.	#N/A	#N/A	Thank you for feedback, it has been noted. This learning outcome is proposing a general topic to be covered as opposed to the specific detail within that topic. However, the use of data analytics tools is expected to be covered.	#N/A	#N/A	#N/A
Your Proposed Outcome	#N/A	#N/A	For Tidal predictions and calculation (particularly secondary tides) there needs to be less emphasis on manual calculations. To reflect "real life" cadets should be informed and use practical excercises to calculate secondary tides using commonly available online software and data sources. It is important to understand the principles of how to calculate a secondary tide, but in real life scenarios it is very unlikely that a mariner wouldn't just look at a website or an app for accurate tidal times.	#N/A	#N/A	#N/A	Celestial navigation and plotting.	#N/A	#N/A	#N/A	There is a need for a detailed syllabus with action verbs (data science skills) and the exact competency / knowledge / skill needed. In the same manner that the IMO gives it in its model courses. This should be made easily available, to all maritime institutes, as well as to cadets. It would be useful for the MCA to encourage ECDIS manufacturers to supply maritime institutes and cadets with Free Demo versions of their softwares so that they can load them on their laptops and practice them. Else quality of training and competense will definitely suffer.	#N/A	#N/A	Passage Planning additional considerations to SEMMP include Environmental, Voyage Optimization (sustainability), country jurisdictions etc....	#N/A	Do not focus entirely on data science.	Technical skills on PC hardware	#N/A	#N/A	#N/A	#N/A	#N/A	Using costal charts to position fix	#N/A	#N/A	#N/A	#N/A	#N/A	Introduce cadets to passage planning software such as Navtor, as well as passage planning on ECDIS.	#N/A	Only teach things like dead reckoning, manual fixes, calculating ETAS etc as contingencies, not routine	Phase one needs to heavily focus on ECDIS and radar use as I was expected to know how to use them during phase 2 but had spent less than a day using ECDIS and radar
Your Rationale for this outcome	#N/A	#N/A	To reflect real life scenarios and to demonstrate that there isn't a great need to complete multiple calculations and waste time, when there is accurate commonly available tidal information already existing.	#N/A	#N/A	#N/A	As the use of ECDIS becomes more widely used the basic concept of celestial navigation is of course valid, however the practical application is difficult given the lack of resources on ECDIS to plot all the relevant information. We teach that you should check the GPS position but deep sea with only ECDIS this will prove challenging.	#N/A	#N/A	#N/A	For the detailed teaching syllabus - To ensure standardized harmonious teaching across colleges. For the free demo software - so that cadets can use them for at least as long as they are currently able to use use paper charts and publications. So that they have lots of hands on practice, 1 to 1. Currently, cadets purchase their own charts and use them in as well as outside the institute. Any electronic replacement / addition should be equal to this.	#N/A	#N/A	Important factors in this increasingly litigious and changing environment, and maintaining awareness / validity	#N/A	While data science is useful it must also not be made to form a primacy. Paper log entries, permits etc are still used and not yet electronic. While an emphasis needs to go towards electronics in the form, it should not be to the detriment of paper.	To understand the PC hardware and software To have basic knowledge on problem solving with PC Basic knowledge on using mandatory softwares.	#N/A	#N/A	#N/A	#N/A	#N/A	It is beneficial to understand how paper charts relate to what is seen on an ECDIS screen.	#N/A	#N/A	#N/A	#N/A	#N/A	Many companies are using passage planning software such as Navtor as they primary method of passage planning. In future years I'm certain more companies will adopt this strategy. While it is very important to maintain traditional chart skills through paper charts and ECDIS, proficiency in software such as Navtor will be essential for officers in the coming years; it already is in many companies.	#N/A	Mostly the ECDIS calculates ETAS, GPS provides positions etc, manual calculations only need to be used if these things fail	ECDIS training in phase 1 to help better prepare cadets for initial seatime
Your Action for this outcome	#N/A	#N/A	To remove the emphasis on calculations for secondary tides (most larger vessels will not commonly entar a port where you need to calculate a secondary tide anyway). And to put more emphasis on tidal information available on electronic sources and how to relate this to passage planning and calculating safe tide heights.	#N/A	#N/A	#N/A	Teaching cadets how to conduct plots using graph paper or possibly a radar plotting sheet. Both are examined at the Chief Mate level, but this should be widely taught at a more junior level.	#N/A	#N/A	#N/A	For the more detailed syllabus - the UK MCA will need to make this and then make it available on the MCA website (as a M notice). For the ECDIS Demo software - the UK MCA would need to ask ECDIS manufacturers to do so.	#N/A	#N/A	To be added to the course syllabus	#N/A	Make people aware of data science, push them towards it but do not focus entirely on it.	Include the training as a part of training	#N/A	#N/A	#N/A	#N/A	#N/A	Continue to use parallel rules and dividers to take running fixes, transit bearings light sectors etc.	#N/A	#N/A	#N/A	#N/A	#N/A	Introduce cadets to passage planning software such as Navtor or equivalent.	#N/A	Only teach things like dead reckoning, manual fixes, calculating ETAS etc as contingencies, not routine	more ecdis use
Sub-Group 1.2 Response	#N/A	#N/A	Many thanks for your feedback, we are in agreement and believe this is covered by our suggestion to contextualise outcome 4, ensuring what is taught accurately reflects onboard practice.	#N/A	#N/A	#N/A	Many thanks for your feedback. Please be assured that these principles are already taught at OOW level. However, as per the Celestial Navigation module, we are looking to modernise the processes being taught to include the use of electronic resources.	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. As part of the modernisation prosess we are intending to created a course guidance document to provide this function. With regards to electronic charts, we will ensure that appropriate teaching resources are a requirement of our course guidance document so that these outcomes are taught effectively.	#N/A	#N/A	Many thanks for your feedback, we have added this to outcome 3.1.	#N/A	Many thanks for your feedback, it has been noted. While paper resources are still in use, we will ensure they remain in the syllabus. In addition, data science may also apply to receiving physical documents as statistical data may be received in any format. The inclusion of data science is certainly not intended to downgrade the standards of teaching of any other subject, only to enhance the use of data already available to a seafarer.	Many thanks for your feedback. Through the change in focus towards using electronic resources as the primary means of navigation, Cadets will naturally gain a greater understanding of the equipment they are using, including hardware and software. However, problem solving of hardware is beyond the requirements of a Deck Officer and would sit in the engineering/ ETO syllabus.	#N/A	#N/A	#N/A	#N/A	#N/A	Many thanks for your feedback. We are in agreement that these topics should still be covered to enable their use in a contingency situation. However, as noted in this module and supported by industry feedback, the main focus of this module will shift towards electronic resources.	#N/A	#N/A	#N/A	#N/A	#N/A	Many thanks for your feedback, it has been noted. We are in agreement that passage planning software should be included in the syllabus. However, we feel it would be more appropriate in the management level "Passage Planning" module, so have this suggestion there.	#N/A	Thank you for your feedback, it has been noted and we are in agreement.	Thank you for your feedback, it has been noted and we are in agreement.

Role	Chair	ETO	Cadet - ETO	Systems Engineer	Retired ETO	Vice Principal Learner Expereince
Organisation	Nautical College Representative Organisation	International Shipping Company	International Shipping Company	International Shipping Company	Ex Merchant Navy	Nautical College
Module	ETO - Mathematics for Engineering	ETO - Mathematics for Engineering	ETO - Mathematics for Engineering	ETO - Mathematics for Engineering	ETO - Mathematics for Engineering	ETO - Mathematics for Engineering
Your Feedback - Outcome 1	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Your Feedback - Outcome 2	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Your Feedback - Outcome 3	I am not against adding this section to this Mathematics module, but I feel that this Outcome is covered in 3.4, adding and subtracting numbers in complex form. The Outcome in the Electro-Technology was included as this is the only place that Cadets will use Complex Numbers so gives significance to the teaching within the Mathematics unit. Removing this from the Electro-technology will lead to 'Why do we need to learn this'. The maths unit must be taught at the start of the curriculum, the Electro-technology coming later. The Cadets are applying their learning of the Maths unit within the Electro-technology therefore giving relevance to the need to understand the maths.	3.7 Hard to say without seeing module 7a. Complex numbers in the rectangular form are useful for representing inductive and capacitive loads with regard to power factor.	#N/A	Is 3.7 not covered by 3.4?	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback, you are correct and this is already covered in outcome 3.4, we shall not include outcome 3.7.	Many thanks for your feedback, you are correct and this is already covered in outcome 3.4, we shall not include outcome 3.7.	#N/A	Many thanks for your feedback, you are correct and this is already covered in outcome 3.4, we shall not include outcome 3.7.	#N/A	#N/A
Your Feedback - Outcomes Above and Beyond	#N/A	For all outcomes contextualised. I am in two minds. When I was a cadet on the pilot scheme for ETO 2010-2013 many of the courses we had seemed to have been chosen because they had a lecturer free to teach it rather than it being good preparation for the student for their vocational role at sea. To satisfy the course funding there seemed to have to be a certain amount of academics. A good proportion of it was a waste of time and I say that as someone who enjoys studying for the sake of it. I am studying an open university degree right now for fun. If the cadetship is to be purely useful for the vocation and all in the context of the job then a good proportion of the academics are unnecessary. If the cadetship is supposed to give the students 2/3 of a degree to be used in the future when they wish to move shoreside and work as an electrical engineer then the modules need to be accredited with the engineering council so a student can do a 1 year topup course and become an incorporated engineer. The system at the moment is a mess. Helm - this sounds a good idea in theory but how do you apply helm to mathematics in the workplace. Dont do maths when fatigued??	Very hard to see how human elements could be incorporated into a pure maths module.	#N/A	much can be gained by sea time provided they are linked to english speaking training officers	I agree that Data Science Skills requires to be included, but feel that by introducing it as a stand-alone module will encourage it being seen as a stand alone unit rather than a unit intertwined with application. The learning activities being used in centres to teach theoretical concepts could be reviewed to embed data analysis (similar to as educations woudl with core-skills such as communication, numeracy and problem solving). This review of learning activity would be more impactful in achieving the objective set out.
Sub-Group 1.2 Response	#N/A	Many thanks for your feedback. With regards to contextualisation, please be advised that we are updating the syllabus to make it more relevant to the jobs on board vessels, however, we will not downgrade the academic standards. This should ensure candidates achieve their academic and STCW qualifications. HELM would not be applicable for this module, however, we have included as a recommendation on every module in case any opportunites to include had been missed by the group. Data science includes data comprehension, analysis, presentation and taking actions based on data. While there may be no opportunities to include in this module, there are many other areas where this will be relevant such as interpreting diagnostic reports.	Many thanks for your feedback, agreed and noted. This is a standard outcome we are looking to achieve above and beyond the standards of STCW and has been included on every module. However, we do agree that in the case of this module, there have been no areas raised where we can include human elements.	#N/A	Many thanks for your feedback.	Many thanks for your feedback. While we have suggested a standalone topic for Data Science, we are also looking to include this throughout the syllabus in the context of work on board.
Your Feedback - Outcomes Above and Beyond						
Your Proposed Outcome	#N/A	#N/A	Statistical methods are becoming prevalent in modern technology. AI, automation and autonomous systems rely heavily on statistical models to operate and a greater understanding of how these work would be beneficial at the highest level - ie if honours degree programme where made available.	#N/A	#N/A	#N/A
Your Rationale for this outcome	#N/A	#N/A	Same as delivery for rest of mathematical module or use of non-mandatory online self learning modules which could be available to students who wished to go beyond the basic syllabus.	#N/A	#N/A	#N/A
Your Action for this outcome	#N/A	#N/A	Create content either to incorporate into module or online course content if creating as a add on.	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A	Many thanks for your suggestion. While we appreciate your suggestion and think this is certainly a fascinating topic, we believe it is too specialist to be included in the Cadet Syllabus and the proposed Data Science module would cover these topics to a more appropriate standard.	#N/A	#N/A	#N/A

Role	Cadet	Small Ferry Engineer	Chief Engineer	Second Engineer	Engineer Cadet	Vice Principal	Academic Exemption Assesor	Academic Exemption Assesor
Organisation	International Shipping Company	National Shipping Company	Private Yacht	National Shipping Company	International Shipping Company	Nautical College	Nautical College Representative Organisation	Nautical College Representative Organisation
Module	Marine Engineering - Thermodynamics	Marine Engineering - Thermodynamics	Marine Engineering - Thermodynamics	Marine Engineering - Thermodynamics	Marine Engineering - Thermodynamics	Marine Engineering - Thermodynamics	Marine Engineering - Thermodynamics	Marine Engineering - Thermodynamics
Your Feedback - Outcome 1	Although it can be argued that all out comes provide a base knowledge for the practical aspects of thermodynamics the subject is truly useless in day to day life on ship. The mathematical side of this subject is pointless as an OOW would never have to (for example) work out the rate of expansion on a pipe when a temperature is applied.	#N/A	#N/A	#N/A	Outcome 1.6 as far as I'm aware has very little application in an engine room. Overall Contents needs to contain more relevance to the processes and systems found in the engine room.	Review of assessment methodology/evidence gathering woudl greatly benefit learning of these subjects. For example a range of simple experiments and lab reports could easily demonstate the knowledge required at the operational level, in addiiton to enhancing concptualisation. With this learnign outcome, it is very easy in teh existing framework to concentrate on the numerial problem solving aspect of the subject rather than developing a conceptual understanding of the thermodynamics involved in these processes.	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. While we agree the focus of this outcome should be more focussed on practical elements. It remains essential for seafarers to understand the underpinning information that impacts these practical elements. This approach has been widely supported by industry. In addition, this is core engineeering knowledge, which provides useful transferable skills for an engineers future careers.	#N/A	#N/A	#N/A	Many thanks for your feedback. We believe that the focus of this outcome should be more focussed on practical elements in order to highlight how this principle is relevant in the engine room. It remains essential for seafarers to understand the underpinning information that impacts these practical elements. This approach has been widely supported by industry. In addition, this is core engineeering knowledge, which a marine engineer may need to complete various processes in the marine environement and ashore.	Many thanks for your feedback, we are in agreement and this is how we expect to implement our reccomendations.	#N/A	#N/A
Your Feedback - Outcome 2	Again this outcome is stupid “modernise - cryogenic fuel storage systems” that is something that can be covered in a subject like auxiliary systems or naval architecture. The modernisation of pointless outcomes is futile.	#N/A	#N/A	Outcome 2, this needs to include cargo refrigeration and reliquification systems as well as storage systems.	#N/A	I am not convinced that the revised sub-outcomes in their existing form will lead to a change in applying the desired theory to modern fuels. More directed contextualisation might be required to ensure that the intended outcome is being achieved, rather than leaving this to the centre's discression.	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. While we appreciate your opinion, the general consensus from the working group and feedback from the industry survey is that this would be a welcomed change. Cryogenic fuel storage systems were only used as one example of the reason this modernisation is required.	#N/A	#N/A	Many thanks for your feedback. The intention is to be able to teach the principles of this topic, with practical examples of where they are applicable. The examples you have provided are other potentials that could be used.	#N/A	Many thanks for your feedback. While we argree that these sub-outcomes should be contextualised and we will highlight this in the indicative content of the finalised module, we also need to ensure that we do not become too prescriptive and inflexible in rapidly a changing environment.	#N/A	#N/A
Your Feedback - Outcome 3	All outcome points repeated in many subject so it is pointless to have it here.	#N/A	#N/A	Included in this should be practical sessions on calculating engine efficeincy and unbalance and what factors to take to correct these issues.	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. During our review we have endeavoured to remove any repitition. If you can highlight where else in the syllabuses these topics are covered, we will review and respond. Please send any additional feedback to ctandm.enquiries@mcga.gov.uk	#N/A	#N/A	Many thanks for your feedback, we are in agreement with your suggestion and have attempted to reflect this in our suggested actions.	#N/A	#N/A	#N/A	#N/A
Your Feedback - Outcome 4	Arguably the only part of the subject that has an relevance to jobs whilst onboard ship.	#N/A	#N/A	4.2 Needs to be modernised to take into account behaviour of liquified gasses in storage. 4.3 Needs to be modernised so that there is a better understanding of how liquified gasses behave when stored. 4.7 Needs to be update to include alternative and future fuels.	#N/A	#N/A	#N/A	#N/A

Sub-Group 1.2 Response	Many thanks for your feedback.	#N/A	#N/A	Many thanks for your feedback. We are in agreement with regards to outcome 4.2, 4.3 and 4.7. This outcome provides the underpinning knowledge to understand the topics you have suggested and those topics may be used as examples as part of the contextualisation of these outcomes.	#N/A	#N/A	#N/A	#N/A
Above and beyond STCW	"Include data science skills" we are training to be marine engineers not data processors. We don't need to know how to do that we need to know how oil is transported through the piston or how the ship doesn't sink.	#N/A	#N/A	In order to help conceptulise what is being taught it would be useful if colleges were able to pair up with ships that call into ports near them and organise visits for the cadets. Given that there is no way to know the quality of the sea time expereince cadets will have as much use as possible should be made of ship visits to provide some basic level of control over some of the shi;board expereince the cadets get.	#N/A	The learning outcomes require more specific direction for centres and assessment methods need to be revised to ensure that they are assessing the application and understanding of concepts rather than mathematical application. This could be achieved through practical experimentation, simulation and reports rather tahn closed book examinations.	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. The indication from the working group and survey feedback is that data science skills are used, if not explicitly, in the day to day work of an marine engineer. As such, we believe that understanding how to make best use of these skills would be beneficial.	#N/A	#N/A	Many thanks for your feedback. This a a very good idea, although not something we can implement through the syllabus modernisation. It will be fed back to the nautical colleges.	#N/A	Many thanks for your feedback. We are in agreement that the assessment processes require modernisation and this will be reviewed upon completion of the syllabus content review.	#N/A	#N/A
Your Proposed Outcome	In truth thermodynamics is an out dated subject and with its removal time and funding can be directed to more useful subject such as fundamentals of control systems and transducers or simulation exercises.	Welding and fitting skills are essential skills for seafarers and one day a week is not long enough. The current course program of making lots small pieces should be changed for a separate three or 4 month course dedicated to improving welding and fitting skills using online videos as guides.	With regards to fuels, the inclusion of low sulphur and cryogenic fuels are on par with the technology curve. We should be AHEAD of the curve and also touch on research and development into synthetic fuels and other combustible liquids like methanol which is being trialled by some companies. It is being prepared and ahead of the curve, not catching up which the marine engineering syllabus has been doing for decades.	#N/A	#N/A	#N/A	I think that the wording in the second column	The second column marked 'Rationale' uses the term 'It is useful to know' I think these statements should be strengthened to say - 'It is essential to know'
Your Rationale for this outcome	Most courses underestimate the amount of welding and fittings done on ships.	To secure the employability and preparedness of British trained marine engineering officers in a constantly evolving and changing marine environment.	The development of modern ships will move toward more thermal encasement of the machinery as we move to reduce any 'lost' energy and improve waste heat recovery. This means that engineers will need to be able to form a mental picture about how well the machinery is operating. This picture will be built up by their understanding of the scientific principles involved as well as the mechanical arrangement of the machinery.	#N/A	#N/A	#N/A	#N/A	#N/A
Your Action for this outcome	Online learning and workshop learning combined together over several months focused on welding and fitting.	Realistic examples to demonstrate the research in these fuels and to include their characteristics in the studying of thermodynamics.	Change the wording of the rationale to reflect the importance of being able to form the correct understanding of the operation of modern machinery when it is not easy to get close to the equipment itself	#N/A	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. While we appreciate your suggestion to increase the amount of time spent teaching workshop skills (which is currently at least three months), we do not believe that sacrificing a core engineering principle such as thermodynamics would be an appropriate way to do this.	Many thanks for your feedback. While we appreciate your suggestions, this is not relevant to the current module. Please proivide this feedback to the Workshop Skills module.	Many thanks for your feedback. We are in agreement with your sentiments and have left the outcomes flexible so that modern and future technologies are covered in the syllabus. The examples of low sulphur and cryogenic fuels were not an exhaustive list and all relevant, modern and future fuels will be required to be covered.	#N/A	#N/A	#N/A	Many thanks for your feedback.	Many thanks for your feedback.

Role	Curriculum Manager	Deck Cadet	Director	Chief Officer	Crew Operator/Training Officer	OOW Unlimited (Deck)	Cadet Manager	Navigating Officer	Maritime Standards Manager	Navigation (Examiner) Manager	Director, Marine HR	Marine Assurance Manager	Marine Superintendent	Lecturer	Second Officer	Deck Cadet	Chief officer	Cadet
Organisation	Nautical College	International Shipping Company	Maritime Charity	Freelance	International Shipping Company	Maritime Charity	Maritime Charity	International Shipping Company	Government Regulatory Body	Maritime Charity	International Shipping Company	UK Utility Company	Offshore Supply Services	Nautical College	International Shipping Company	International Shipping Company	Superyachts	International Shipping Company
Module	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping	Deck - Bridge Watchkeeping
Your Feedback - Outcome 1	#N/A	Standards should be set for the graphics of the simulator to ensure they are realistic and practical. ie cadets are not looking at pixels and lights can be easily distinguished.	#N/A	#N/A	#N/A	#N/A	#N/A	Smarty boards still work fine and so they should continue to be used. Agree that computer simulation should also be used as this is representative of what the MCA use in online oral examinations.	Agree with the 'inclusion' of bridge or desktop simulation for IRPCS and IALA buoyage systems as part of the training but not that these topice are taught exclusively in that manner.	Whilst broadly agreeing with the statements and the fact that this topic is essential and must remain in the syllabus recent incidents globally show the need to enhance the teaching and awareness on buoyage and IALA requirements. IALA have recently produced a guideline G-1173 Guidance on Marine Aids to Navigation Awareness and Training for Mariners. This guideline should be used alongside the recently updated IALA Marine Buoyage System documents when forming and teaching the syllabus. Current teaching of the buoyage system is too basic and purely focusses on how to pass buoys and not any of the problems associated with them. The relevant guidelines can be found on the IALA website or any of the GLA will be able to provide them. We need to stop statements like those found in the MAIB report on the grounding of the Kaami where it states the chief officer was unaware of the significance of the south cardinal buoy.	#N/A	#N/A	#N/A	Suggest add a few case studies - perhaps specific to UK (MAIB) that illustrate the IRPCS. Suggest add the MIN MIGN MSN notices related to IRPCS / COLREGs / ROR.	Colregs is obviously the foundation of the job itself - but repeating the rules verbatim doesn't help anyone. Having sailed with many officers from various places around the world I have learnt that many systems apply pictures and rewrite the rules to make more practical sense of them. Many cadets who regurgitate rule 7 don't actually know how to apply it. I think there needs to bea bigger focus on what the rules mean and not just getting them signed off in your book. Make the cadet draw a picture and explain what a collision situation looks like, what action must be taken and why and how to monitor the situation until finally passed and clear. The words itself don't mean the cadet understands the actions.	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	Thank you for feedback, agreed and noted.	#N/A	#N/A	#N/A	#N/A	#N/A	Thank you for feedback, agreed and noted. Other means of teaching remain relevant and will be included within the syllabus.	Thank you for feedback, agreed and noted. Other means of teaching remain relevant and will be included within the syllabus.	Thank you for your feedback, this remains a key part of the teaching syllabus and will continue to be. We are confident that within the UK this is taught and assessed to a high standard. Thank you for highlighting the relevant guidelines and documents.	#N/A	#N/A	#N/A	Thank you for your feedback, case studies and relevant guidance will be used throughout the teaching of this module to provide examples.	Thank you for your feedback. The intention of the learning outcome and the recommendation for the use of simulators is intended to have the result noted in your comment.	#N/A	#N/A	#N/A
Your Feedback - Outcome 2	Regarding items 2.3-2.5 could this be achieved through the use of compulsory simulator time to add some 'realism'. I know that colleges are able to do this if they feel it would be now fit, and that these items are also covered in the NAEST course, but if the simulators could be used as standard practice from the very start of a cadets training, then I fee this can only benefit them, instead of what potentially could be pure theory subjects, this could be mixed with practical, keeping the sessions engaging and challenging for the required level that is needed.	#N/A	I presume this module includes technical transformation and the use of data.	#N/A	#N/A	Outcome 2.6: I believe this needs to have clear outcomes within this topic about what parts of engineering need to be discussed within the deck department and how this will link with our duties. From my experience at college, the syllabus seemed rather unlinked to the deck side and taught information we were told 'we would never need to know as a deck officer'. Even though it was interesting to see what systems are used in the engine room and the inner workings of them, it would be good to link it more into the seatime and have a section in the TRB where we learn in the workplace and ade able to understand with the help of being in the environment. There are small entry's in the TRB such as soundings and ullages, however this could be expanded. A large emphasis needs to be made on how these systems impact how we work on the bridge, for example effects on stability/propulsion or why we aren't able to set revs too high etc if it is to be such a big part of the deck syllabus.	#N/A	To include IMO Standard Marine Communication Phrases. To include the overlap between IRPCS and Captains Standing Orders.	Agree that no changes in this topic area are required at this stage.	#N/A	#N/A	#N/A	Outcome 2 had no text entered in the rows, assuing this has to be kept.	#N/A	Agree. In addition, these topics are vast, hence clearer and more specific guidance is needed from the UK Government, listing what exactly needs to be taught to cadets / aspiring OOWs at this level (in a similar manner that the IMO model course 7.03 does for OOW in countries that follow the IMO Model Course.	2.2 needs working on. Do more "bridge watches" where the teachers throw information at the oow that must be recorded and communicated, i.e emergency steering, bunkering, ballasting. In These scenarios the cadet may gain a better understanding of how the engine room and bridge interact. 2.6 bigger focus on marine engineering, fuel types, engine types, means of propulsion, integrate marpol when going into special areas etc	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for your feedback, this has been noted and agreed in principle for the whole outcome.	#N/A	Thank you for feedback. As per the survey, we are looking to include data science skills where applicable. Please may you expand on where within this module you think they would be relevant?	#N/A	#N/A	Thank you for your feedback, this has been noted and a note on contextualising this outcome has been added.	#N/A	Thank you for your feedback, these factors are already included within the syllabus.	Thank you for your feedback, it has been noted.	#N/A	#N/A	Thank you for your feedback, our intention is to keep outcome 2.	#N/A	Thank you for your feedback, it has been noted.	Thank you for your feedback, it has been noted. We have added a suggestion to use simulators to provide contextualised learning for cadets with regards to these outcomes. The engineering topics you have noted are covered in the management level module.	#N/A	#N/A	#N/A
Your Feedback - Outcome 3	As mentioned prior, learning the theory and then compulsory/recommended simulator time would benefit items 3.1 and 3.2. I appreciate that this will have challenges in its own right but a cadet isn't likely to have much shop Handholding experience onboard ship (some companies are better than others at this) so by doing some ship handling in a simulator could give them a little bit of experience and understanding in this area.	3.1, 3.2 Include new propulsion. Was very focused on the fixed pitch and adjustable pitch propellers, more and more ships are using azimuth thrusters. I think they should be given more of a spotlight when taught. We are taught how to do the different types of turns, Anderson, Williamson and short round turn. These manoeuvres would be significantly different if done on azimuth thrusters. All officers and masters that I have met on azimuth ships, know everything from	#N/A	#N/A	#N/A	#N/A	Include different types of propellers/ azipods/bow thrusters/ and Left handed Propellers. How displacement and windage area affects the vessels maneuvering capability .	To include much more emphasis on non standard methods of propulsion rather than just RHFPP; such as a azipod toe angle.	Agree that no significant changes in the way this subject is taught at Cadet level is required.	#N/A	3.2 Can we ensure the training for manoeuvring is not limited to conventional propulsion but also includes other configurations such as multiple azipods.	#N/A	#N/A	No comments	I do agree this must be kept but speaking from personal experience this is an area I hugely lacked when going to sea. Talk through a wheelhouse poster and what the information means to the Seafarer. More practical exercises such as crash stops, why the turning circle matters, different manoeuvres, and especially coming alongside, why does this have to start at mates level. Big focus also on communication when berthing the ship, the oow should know what must be reported such as distances etc	Many ships are opting to use azipods and DP systems. It would be helpful to cover these systems in more detail than the current syllabus to give cadets who will only see traditional propeller-rudder systems an overview of the industry as a whole,	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for your feedback, it has been noted and actioned. The practical operational level of ship handling is covered during the NAEST(O) course. This outcome provides the theory and we will make sure these are linked with the practical ship handling in NAEST(O) or extra shiphandling time in the simulator. Further simulator time has also been recommended at the Management Level.	Thank you for your feedback, it has been noted. We agree that modern propulsion systems should be included. However, the wording of this outcome allows for modern and future propulsion and their characteristics to be taught, this will be included in the course guidance document produced.	#N/A	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. We agree that different propulsion systems should be included. However, the wording of this outcome allows for modern and future propulsion and their characteristics to be taught, this will be included in the course guidance document produced.	Thank you for your feedback, it has been noted. We agree that different propulsion systems should be included. However, the wording of this outcome allows for modern and future propulsion and their characteristics to be taught, this will be included in the course guidance document produced.	Many thanks for your feedback.	#N/A	Thank you for your feedback, it has been noted. We agree that modern propulsion systems should be included. However, the wording of this outcome allows for modern and future propulsion and their characteristics to be taught, this will be included in the course guidance document produced.	#N/A	#N/A	Many thanks for your feedback.	Thank you for your feedback, it has been noted and actioned. The practical, operational, level of ship handling is covered during the NAEST(O) course. This outcome provides the theory and we will make sure these are linked with the practical ship handling in NAEST(O) or extra shiphandling time in the simulator .Further simulator time has also been recommended at the Management Level.	Thank you for your feedback, it has been noted. We agree that modern propulsion systems should be included. However, the wording of this outcome allows for modern and future propulsion and their characteristics to be taught, this will be included in the course guidance document produced.	#N/A	#N/A
Your Feedback - Outcomes Above and Beyond	Instead of having HELM as a stand alone course, could this subject and stalls us be incorporated into a cadets academic training?	#N/A	Will this include safety culture?	#N/A	The syllabus seems to lack any reference to human element training or understanding and dealing with human factors, when the bridge is one of the places these accidents most commonly occur. Training cadets from an early stage of their career in BRM and having a full understanding of the need to challenge poor or unsafe decisions is key to making the next generation of officers safer and would promote the sorts of principles (just cultures etc.) that the MCA need to teach new officers	#N/A	#N/A	BRM, leadership and management to be focussed on at all times along with human element.	I do not accept that a specific topic 'data Science Skills' which is either examinable or forms part of Cadet assessment is either necessary or desirable unless and until IMO changes to STCW are implemented. These areas can be covered informally if desired.	I agree data science needs to be taught so long as all of the risks are also highlighted. This should include resilient PNT and other factors which could drastically hamper data transfer as systems such as VDES and VDAT come to fruition in the future. There may also be a need to have awareness of S-100 and S-200 standards which are being developed and will affect bridge watchkeeping. Where this fits into the syllabus I am currently unsure.	#N/A	#N/A	I have already made my feelings known in regard to using big words when smaller and more understood ones will do , You are writing a syllabus, not trying to impress	Data science skills can be explained using 4-5 different action verbs (Bloom's taxonomy) for the same task - each resulting in different learning. Example - What is an enclosed space? List 3 enclosed spaces on your last ship and describe why you consider them to be enclosed spaces. List 3 precautions to be taken as per COSWP prior to entering an enclosed space. Describe how you will take these 3 precautions, and describe why they are important. Analyse why these 3 precautions are necessary, explaining the pros and cons of each, and what can happen if they are not carried out. An exercise like the above can help cadets understand why these action verbs are important, while simultaneously learning a topic of importance.	#N/A	Data science skills- please introduce a Microsoft Excel specific outcome. Excel is used at all levels in the deck department and many of my cadet colleagues have never used the software.	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for your feedback. Our intention is to incorporate Human Element Factors throughout the syllabus. Approved Training Providers can either provide HELM(O) as a standalone course or as an integrated part of the syllabus.	#N/A	Thank you for your feedback. Safety culture has been included throughout this module.	#N/A	Many thanks for your feedback. Through this review process, we are looking to add further Human Element Factors throughout the syllabus, as it is already covered within some parts of the syllabus. Your comment regarding this specific module has been taken on board and we will ensure Human Element Factors are covered, where relevant, with regards to Bridge Watchkeeping.	#N/A	#N/A	Many thanks for your feedback. Your comment regarding this specific module has been taken on board and we will ensure Human Element Factors are covered, where relevant, with regards to Bridge Watchkeeping.	Many thanks for your feedback. This is a topic which we are looking to introduce above an beyond the requirements of STCW, in order to future proof the skills of seafarers.	Many thanks for your feedback. Any Data Science module would look to include all relevant factors, including the associated risk. The specifics of this module would be determined at a later date. We agree that awareness of upcoming data standards, such as the S-100 series, will need to be covered. These have been suggested in the Chartwork and Tides module.	#N/A	#N/A	Many thanks for your feedback.	Many thanks for your feedback, we greatly appreciate your input. The specifics of this module would be determined at a later date and your feedback will be considered.	#N/A	Thank you for feedback, it has been noted. This learning outcome is proposing a general topic to be covered as opposed to the specific detail within that topic. However, the use of data analytics tools is expected to be covered.	#N/A	Thank you for your feedback, it has been noted. However, we will need to provide data skills at a higher level than achieved previously. These will include data analysis, interpretation and the use of data in different areas on board the vessel.
Your Proposed Outcome	#N/A	#N/A	#N/A	Vessel manoeuvring - cover more than just single screw fixed prop. Addressing all types isn't feasible but at least an introduction to controllable pitch, azipods, bow thrusters etc.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	In addition to the items written, a clear syllabus is strongly needed, so that all colleges in UK teach the same general topics in at least the same depth. Currently, this uniformity is lacking, much to the detriment of cadets and lecturers themselves. This should be a box it(much like IMO Model course 7.03) and should be made available to all nautical colleges and students.	#N/A	#N/A	Morse code needs to be either taken out or examined in a different way.	More emphasis on modern techniques and use of technology - e.g. taking into account radar CPAs rather than taking a series of bearings

Your Rationale for this outcome	#N/A	#N/A	#N/A	Modernise and update the syllabus. So when cadets arrive on a vessel and you're explaining the steering system they already have a base knowledge and aren't looking for the steering wheel...	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Unlike other countries which have such syllabi, UK does not have one. This results in each college deciding topics for themselves, resulting in large dissimilarities between topics taught all over UK. This is not good for cadets and lecturers. As it is, UK MCA does not follow the IMO Model Course 7.03 - this is perfectly ok, as long as there is one common document that all UK colleges broadly follow, and which cadets are also made aware of. Else they compare what they and their colleagues in other colleges are learning, and cannot understand why they are often different. Making a common minimum recommended list of topics with the action verbs (Blooms taxonomy - List / Describe / Explain / Analyse) would go a long way in bringing some standardisation. Individual colleges can then decide which phase to teach this, and in what manner.	#N/A	#N/A	I've been at sea for ten years and never once used morse code, yet the hours spent learning it where I could have spent it learning on coll regs would have been far more useful. If it was to be kept in the syllabus then at least review a change to examination. 80% for 20 characters is almost laughable in this day and age. All those hours would have been better spent in actual relevant bridge watch keeping.	Older warchkeeping elements like taking ranges and bearings aren't often used at sea any more, the teaching needs to reffect actual life at sea
Your Action for this outcome	#N/A	#N/A	#N/A	Factor in time for collection of short videos / diagrams of other systems from both bridge and keel.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	As described above - a common document from the UK MCA listing these minimum topics (currently MIN 653 does not satisfy this requirement, and is too vague).	#N/A	#N/A	Amend the examination on morse or take out completely	More emphasis on modern techniques and use of technology - e.g. taking into account radar CPAs rather than taking a series of bearings
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. We agree that different propulsion systems should be included. However, the wording of outcome 3 allows for modern and future propulsion and their characteristics to be taught, this will be included in the course guidance document produced.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. As part of the modernisation process we are intending to created a course guidance document to provide this function.	#N/A	#N/A	Thank you for your feedback, it has been noted. Morse code is not included in this module but we will incorporate your feedback on the appropriate module. Morse code remains an STCW requirement. However, it is our intention to raise this within the IMO's STCW Comprehensive Review.	Thank you for your feedback, it has been noted. We agree that an appreciation of the use of modern techniques and technologies are very important. However, we are still required to teach the visual methods to provide the underpinning knowledge required to use the modern technology. Also, it remains a requirement of rule 7 in COLREG.

Role	Second Engineer	Chief Engineer Officer
Organisation	National Shipping Company	International Shipping Company
Module	Marine Engineer - Mechanical Principles	Marine Engineer - Mechanical Principles
Your Feedback - Outcome 1	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A
Your Feedback - Outcome 2	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A
Your Feedback - Outcome 3	These need to be updates to reflect how these properties change when the material in question is exposed to the alternative fuels in use and being proposed.	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. The systems encountered onboard will have been type approved and, as such, the proccess for assessing these characteristics will have already been completed and is not necessary for operational officers.	#N/A
Your Feedback - Outcome 4	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	#N/A
Above and Beyond STCW	The current HELM course doesn't really cover the important human element factors and certainly the corrent sylibus does not cover the topics that can be asked as part of the senior oral exams. Dealing with items relating to mental health and frist aid, bullying, harrassment and sexual harrassments are not taught and officers are left to handle these without any form or training and little guidance. If we wish to create a safe working environment and encourage more diversity in the indurty we must make sure future leaders are given the tools to support both them selves and others. Data Science needs to include how systems interact, how changes in one part of the plant can effect other areas of the plant.	#N/A
Sub-Group 1.2 Response	Many thanks for your feedback. We are in agreement that mental health, first aid, prevention of bullying, harrassment and sexual harrassment should be covered, these have been included as suggestions in the Marine Law and Management modules. Your input on Data Science will be taken on board in the development of the module.	#N/A
Your Proposed Outcome	#N/A	A return to the principal of sending Cadets to sea for a short sea phase after 8-10 weeks basic familiarisation in their training college before returning to college to begin their academic studies in earnest.
Your Rationale for this outcome	#N/A	Many Cadets are unsure how they will adjust to life at sea and have a picture in their minds which is based on anecdotal evidence rather than experience. College lecturers are often the primary source of this anecdotal evidence and their experience is often not representative of the world of seafaring today. Give the Cadets a chance to find out early-on, if a career at sea is suitable for them before investing too much time and money in their training.
Your Action for this outcome	#N/A	Conduct a review of the structure of Cadet training with regard to college and sea phases.
Sub-Group 1.2 Response	#N/A	Many thanks for your feedback. We believe that this has already been kept in mind through the design of the cadet phase structure with phase one being short, followed by a shorter first sea phase. The bulk of learning and seagoing service is included in Phases 3 and 4. This is not the appropriate forum to take this work forward. However, if you would like to discuss further, please email ctandm.enquiries@mcga.gov.uk

Role	Second Engineer	Engine cadet	Vice Principal Learner Expereince
Organisation	National Shipping Company	International Shipping Company	Nautical College
Module	Marine Engineering - Auxiliary Systems	Marine Engineering - Auxiliary Systems	Marine Engineering - Auxiliary Systems
Your Feedback - Outcome 1	There should be more on the design of the systems and the calculations involved.	#N/A	Learning can be enhanced through adopting more innovative methods of delivery such as mechanical dissection. The challenge with this unit is the scope and weighting which it is given relative to the more academic units. This could be addressed through integrated delivery methodologies and comprehensive curriculum mapping and learning experience design, which at teh moment the segregation of units does not seem to encourage.
Sub-Group 1.2 Response	Many thanks for your feedback. We appreciate your input but believe that the current level this is taught to is appropriate and this has been supported through the response to this survey. Routes above and beyond the cadetship syllabus are being looked into as part of the Career Pathways working group, please let us know if you would like to be part of this work by replying to ctandm.enquiries@mcga.gov.uk	#N/A	Many thanks for your feedback. As part of this process we are strongly recommending the use of a diverse range of resources to ensure a fully contextualised learning experience. We are also highlighting links between modules to ensure topics covered across modules are taught effectively in the context of an onboard environment.
Your Feedback - Outcome 2	2.5 needs modernised. The sylibus still covers hydraulic telemotors and hunting gear, which modern ships do not use. 2.7 While paralleling theory has not changed equipment in use has and manually paralleling can be a problem becuase of equipment layout. Especially on high voltage systems.	#N/A	Additional breakdown of learning will be required to ensure consisteny between centres as the learnign outcomes are vauge and open to interpretation.
Sub-Group 1.2 Response	Many thanks for your feedback. We appreciate your input but believe that the current level this is taught to is appropriate and this has been supported through the response to this survey. Routes above and beyond the cadetship syllabus are being looked into as part of the Career Pathways working group, please let us know if you would like to be part of this work by replying to ctandm.enquiries@mcga.gov.uk	#N/A	Many thanks for your feedback. As part of this process we are strongly recommending the use of a diverse range of resources to ensure a fully contextualised learning experience. We are also highlighting links between modules to ensure topics covered across modules are taught effectively in the context of an onboard environment.
Your Proposed Outcome	#N/A	More theory beind diesel electric ships and the different equipment that is associated with them. With a bit more focus on the propultion of a diesels electric ships. And more theory behind how the dp system works and it associated systems	#N/A
Your Rationale for this outcome	#N/A	I feel like these areas are over looked abit when in the classroom and when cadets who are on ships in offshore or ships that are diesel electric with a dp systems, they go to see and there are systems that were not covered by the syllabus. I.e split switch boards (electrical distribution) and the hi-pap systems.	#N/A
Your Action for this outcome	#N/A	Introduce these into the syllabus	#N/A
Sub-Group 1.2 Response	#N/A	Many thanks for your feedback. We do agree that the topics of diesel electric vessels and DP systems need to be covered. However, these are both covered in the propulsion module and, as such, we do not think they should be covered again in this module.	#N/A

Role	Deck Cadet	Assistan Professor	Cadet Manager	Vice President	Master	Maritime Standards Manager	Director	Director, Marine HR	Lecturer	Lecturer	Second Officer	Cdeck Cadet	Cadet	Navigating Officer
Organisation	Unknown	University	Maritime Charity	International Shipping Company	International Shipping Company	Government Regulatory Body	Supply Services	International Shipping Company	Nautical College	Nautical College	International Shipping Company	International Shipping Company	International Shipping Company	International Shipping Company
Module	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction	Deck - Marine Meteorology an Introduction
Your Feedback - Outcome 1	#N/A	Students at least have to learn how to read the value, basic meteorological instrument before cadet training starts.	include safe use and care of met instruments. (eg :no books on top of the barograph)	#N/A	#N/A	Agree that no significant change into how this subject is taught at Cadet level is required but that practical experience in the use of meteorological instruments is desirable	#N/A	#N/A	Agree - cadets should be given tasks that require them to use wet / dry bulb thermometer, find out humidity using it, and take readings using barometer. A marine anemometer should be made a requirement in each nautical college, and its practical use should be made part of the curriculum.	#N/A	Add lots of more modern sources of weather routeing and weather services, i.e weather routeing companies and what they look at, how different vessels may behave in different conditions and ordinary services such as windfinder, windy.com, etc. Which supplies the weather overlay for my passage planning software I currently use	#N/A	Alot of the instruments are very old fashioned and no longer used at sea, I think there's a case for removing most of them from the syllabus altogether. The Beaufort scale shouldn't be emphasised as much - the log books at sea contain a 'cheat sheet' that gives the speeds of each wind force, so we don't need to know them off by heart. I feel the organisation of the WMO isn't really relevant for seafarers - we only need to know it exists and what it does, not its inner machinations.	Instrument analysis and recognising trends as well as just use of. WMO is of little to no significance to the mariner, suggest usage of met services including their strengths and weaknesses world-wide (such as Met Office and National Hurricane Centre). In a progressively digital age of met and just reading data, the practical application of observations (such as buoys ballot's law) is more important than ever.
Sub-Group 1.2 Response	#N/A	Many thanks for your feedback, agreed and noted. This is included in the cadet training before going to sea in phase 1 of their training.	Many thanks for your feedback, agreed and noted.	#N/A	#N/A	Many thanks for your feedback, agreed and noted.	#N/A	#N/A	Many thanks for your feedback, agreed and noted.	#N/A	Many thanks for your feedback, it has been noted. The introduction to weather routing services is included in sub outcome 1.4 and covered in more detail in the management level Passage Planning and Applied Marine Meteorology modules	#N/A	Many thanks for your feedback it has been noted. However we feel this is still relevant and needs to be taught but agree not in too much detail.	Many thanks for your feedback it has been noted. However we feel it is still relevant to cover. WMO is only an introduction at this level. The practical application of observations are covered in more detail in the Management level Passage Planning and Applied Marine Meterology modules
Your Feedback - Outcome 2	#N/A	I am giving the courses of Meteo&Oceang. I and II. Students need to understand how to surface winds and precipatation types generate. these outcomes should be modernise, other than classical methods should be shown by lectureres. (like animation)	#N/A	#N/A	#N/A	support the proposed contextualisation with respect to troposphere and horizontal visibility.	#N/A	#N/A	In addition to the above, there is a need to correlate what is being taught with the weather fax and on board weather experienced at an early stage. The current focus appears to be more theoretical and less marine practical. Doing the above can help achieve this 'real world connect'.	#N/A	I keep repeating weather routeing but I think there must be a bigger focus on how the weather affects passage planning and what for example 5m beam seas mean to the vessel and what actions can be taken to avoid this. What an area of low pressure may mean to the vessel... Etc etc	#N/A	I think things like the troposphere involve going into too much detail - we don't need to know all of this, just how to predict bad weather and what to do about it	High level of met understanding is no longer necessary due to incredibly comprehensive weather forecasting. All focus should be on knowing how to understand weather reports received and how to respond correctly. RoR and Met should be taught separately at all times, two completely unrelated subjects; the definition of ResVis in Rule 3L is simple.
Sub-Group 1.2 Response	#N/A	Many thanks for your feedback, it has been noted. A modern approach to teaching this is already being followed by colleges within the UK	#N/A	#N/A	#N/A	Many thanks for your feedback, it has been noted.	#N/A	#N/A	Many thanks for your feedback, it has been noted and has been included as part of the modernistion	#N/A	Many thanks for your feedback, it has been noted. This has been covered in more detail in management level. Context as well as linked modules are part of the finalised templates	#N/A	Many thanks for you feedback, it has been noted.	Many thanks for you feedback, it has been noted.
Your Feedback - Outcome 3	#N/A	#N/A	#N/A	#N/A	#N/A	Agree that the way that this area is currently taught at Cadet level is satisfactory and no changes are required.	Outcome 3: I'm not sure if this is the right place to put this, but somewhere the unreliability of historical weather data must be stressed. Twenty years ago I worked for a period in the Gulf of Mexico and calculated that in the previous 11 years, the area had suffered two '50 year storms' (calculated to occur only one in a 50 year period) and one '100 year storm'. The maths simply do not work. Weather is changing globally - and historical weather data simply cannot be relied on. We used to use historical weather data charts when passage planning years ago - I know weather forecasts have improved dramatically since then but I believe this point should be emphasised to our future deck officers.	#N/A	Practical exericises related to weather faxes (surface analysis charts) should be given more importance and time.	#N/A	More focus on interpretation of the weather. Yes we all know what a cumulonimbus is, what does that mean to us.	#N/A	I've never seen a synoptic chart used at sea, only electronic forecasts etc. We don't need all of this detail	Agree
Sub-Group 1.2 Response	#N/A	#N/A	#N/A	#N/A	#N/A	Many thanks for your feedback, it has been noted.	Many thanks for your feedback, it has been noted and the group is in agreement that the changing weather trends need to be included but feel this should be covered at management level and will be included in the Applied Meteorology module	#N/A	Many thanks for your feedback, it has been noted.	#N/A	Many thanks for your feedback, it has been noted.	#N/A	Many thanks for your feedback, it has been noted.	Many thanks for your feedback, it has been noted.
Your Feedback - Outcome 4	#N/A	#N/A	Agree focus on circulation of the specific currents, but ALSO they should know the name of the main currents that circulate in the Ocean waters.	4.1 - Fundamentals need to be maintained without further simplification and watering down 4.3 -Maintain naming to support contextualization and awareness	4.3 Ocean Currents. Important that the potential Officer gains an understanding of how a positive, as well as an adverse current, can impact the vessel with regards to speed, potential drift, fuel consumption, ETA, etc. Appreciate how the currents can be used to the advantage of the Master/Owner, just as avoiding a counter current can be disadvantageous.	I am not sure that simplifying this area is necessary and see little wrong in the way it is currently being taught. I agree that the contextualisation with respect to weather routing is necessary.	From the 'Actions required' it appears Meteorology has taken a step back since I did my certificates.	Agree the focus of currents should be on circulatory patterns however, we should not be restricting the names of currents for our future officers. Current names are covered in secondary school geography (certainly in my daughters case). A major part of a navigating officer is to know the sea and the terms that goes with it. A Master may ask the second mate to take advantage of a particular current and he/she would not expect to have to explain where that is.	Agree with 4.1-4.2. For 4.3 - cadets need to know the important currents, like Gulf Stream, Benguerla, Kuroshio and Oyashio, as they are used frequently in navtex and Inmarsat C weather messages in these sea areas, and cna change the ship's speed by 2-4 knots.	4.3 - already discuss circulation - but not assessed	Focus on weather routeing with favourable currents	#N/A	#N/A	All to be at a very basic level and focus on where the information can be sourced from onboard (Routing Charts, Mariners Handbook etc.)

Sub-Group 1.2 Response	#N/A	#N/A	Many thanks for your feedback, it has been noted and agreed.	Many thanks for your feedback, it has been noted and agreed.	Many thanks for your feedback, it has been noted and is covered in the "Applied Marine Meteorology" module, outcome 4.1.	Many thanks for your feedback, it has been noted and agreed.	Many thanks for your feedback, it has been noted.	Many thanks for your feedback, it has been suggested that emphasis should be on circulation. Naming of the currents will continue to be taught.	Many thanks for your feedback and agreement on 4.1 & 4.2. It has been suggested that emphasis should be on circulation. Naming of the currents will continue to be taught.	Many thanks for your feedback, it has been noted.	Many thanks for your feedback, it has been noted.	#N/A	#N/A	Many thanks for your feedback, it has been noted.
Your Feedback - Outcomes Above and Beyond	A cadet should be able to understand why certain weather phenomenons happen but , a full modernisation of the subject should be considered since some of the outcomes are dated and not really relied upon in the real world. Maybe splitting the subject into a introduction for Phase 1 cadets then a more in depth look into met in phase 3	Satellite REmote sensing of weather elements better to be included.	#N/A	#N/A	#N/A	I do not agree that there needs to be a specific topic of 'Data Science Skills' . I would oppose such skills being an examinable topic or assessed as part of a cadets qualifications unless and until IMO amend STCW accordingly.	#N/A	#N/A	Learning outcomes need to be clearly specified, and circulated among lecturers and students in a booklet form (example - through a MIN of MGN shippign notice). This will help both, cadets / students and their teachers / lecturers.	#N/A	#N/A	Data science skills- please introduce a Microsoft Excel specific outcome. Excel is used by all members of the deck department and many of my cadet peers have never used the software.	#N/A	Human Element to have a Command, Leadership, Management, Coaching and Mentoring spin on it at all times in a Bridge environment.
Sub-Group 1.2 Response	Many thanks for your feedback, we are in agreement and it has been noted.	Many thanks for your feedback, we believe this has been included already within this module and the "Applied Marine Meteorology" module as the seafarer would receive satelittle weather reports from routeing services or meteorlogical organisations.	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. This is a topic which we are looking to introduce above an beyond the requirements of STCW, in order to future proof the skills of seafarers. It will be included as a UK recommendation as part of the IMO's comprehensive review of STCW.	#N/A	#N/A	Thank you for your feedback, our intention is use the work from this consultation to create a new guidance document for colleges to deliver the modules.	#N/A	#N/A	Thank you for feedback, it has been noted. This learning outcome is proposing a general topic to be covered as opposed to the specific detail within that topic. However, the use of data analytics tools is expected to be covered.	#N/A	Thank you for your feedback, it has been noted. We have attempted to ensure HELM is included, in context, throughout the syllabus.
Your Proposed Outcome	#N/A	I am working as an Oceangoing Captain and Assis. Prof. at MAritime College and already giving these modules. I would like to advice to integrate modern technologies to monitor and to understand forecasting of wather by remote sensing satellite weather.	#N/A	Modernize the teaching delivery / approach methodology, but maintain the content as meteorology is a significant operational factor.	4.3 Ocean Currents. Important that the potential Officer gains an understanding of how a positive, as well as an adverse current, can impact the vessel with regards to speed, potential drift, fuel consumption, ETA, etc. Appreciate how the currents can be used to the advantage of the Master/Owner, just as avoiding a counter current can be disadvantageous.	#N/A	#N/A	#N/A	Please keep all of us, who have participated in this public consultation informed of its results, and of the actions that the MCA finally takes.	#N/A	#N/A	#N/A	#N/A	#N/A
Your Rationale for this outcome	#N/A	I would like to be a part of this modernising evalution.	#N/A	Previous was too didactic.	Fuel efficiency/reduction and its environmental benefits, as well as the obvious commercial advantages.	#N/A	#N/A	#N/A	It will help us better implement the UK MCA's final advice and we can then inform our colleagues of it as well.	#N/A	#N/A	#N/A	#N/A	#N/A
Your Action for this outcome	#N/A	Update cadets` skill by improving not only as Meteo&Oceang. , also ti create awaraness for Sustainabilty and Climate Change.	#N/A	As above	I have been "current routed" as well as "weather routed" often to great effect, but if this service is not an option then a thorough working knowledge of the known - and changing - ocean currents is essential. If I recall, the subject was hardly covered in Met, even up to Masters level, with all knowledge gained onboard through older Mates or Old Men, plus years of reading the Mariners Handbook. Possibly an opportunity to introduce a dedicated ocean current section to the Cadet learnings to sit alongside Met teachings. Just my opinion here....	#N/A	#N/A	#N/A	A MIN or MGN notice from the MCA, once the consultation is completed. A simple email to all participants / contributors to this consultation, with a link describing the results of the consultation.	#N/A	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	#N/A	Many thanks for your suggestion. While we appreciate your kind offer, as part of the modernisation of this module we are looking to help seafarers understand the practical aspects of marine meteorology and how it can be used at sea. This is certainly a fascinating topic, however, we believe it is too specialist to be included in the Cadet Syllabus. However, we will certainly contact you for specialist input as and when required.	#N/A	Many thanks for your response. As part of our review we have put in all efforts to remove a didactic approach and ensure content is focussed on practical application.	Many thanks for your feedback, it has been noted and is covered in the "Applied Marine Meteorology" module, outcome 4.1.	#N/A	#N/A	#N/A	Many thanks for your feedback, all feedback from this consultation will be responded to via email and on gov.uk. Updated syllabus guidance documents will also be published and shared with Nautical Colleges, highlighting the changes made.	#N/A	#N/A	#N/A	#N/A	#N/A

Role	Vice President	Maritime Standards Manager	Master Mariner	Second Officer	Deck Cadet	Cadet	Navigating Officer
Organisation	International Shipping Company	Government Regulatory Body	International Shipping Company	International Shipping Company	International Shipping Company	International Shipping Company	International Shipping Company
Module	Deck - Applied Marine Meteorology	Deck - Applied Marine Meteorology	Deck - Applied Marine Meteorology	Deck - Applied Marine Meteorology	Deck - Applied Marine Meteorology	Deck - Applied Marine Meteorology	Deck - Applied Marine Meteorology
Your Feedback - Outcome 1	#N/A	Proposed contextualisation makes sense	#N/A	There should be a bigger focus on meteorology and actual modern bridge navigation for the entire syllabus.	#N/A	I've never seen a synoptic chart used at sea, it's outdated, remove from the syllabus	Disagree wholeheartedly, all focuses should be on the interpretation of weather forecasts and appropriate action to be taken as a result. This is too in depth considering the exceptionally advanced whether routing received these days.
Sub-Group 1.2 Response	#N/A	Thank you for feedback, it has been noted.	#N/A	Thank you for feedback, it has been noted.	#N/A	Thank you for your feedback, it has been noted. However, it has been indicated through industry feedback that this remains a relevant topic. The focus of this learning outcome is to allow seafarers to interpret weather forecasts and conduct safe navigation.	Thank you for your feedback, it has been noted. However, it has been indicated through industry feedback that this remains a relevant topic. The availability of advanced weather routeing systems does not remove the requirements for seafarers to compare observed weather to the information received from synoptic charts and weather routeing systems.
Your Feedback - Outcome 2	#N/A	Agree that no change is required to the way this subject is currently taught	#N/A	#N/A	#N/A	#N/A	All of this information is contained in the Mariners Handbook, Routing Charts and weather routing services; this is far too in depth.
Sub-Group 1.2 Response	#N/A	Thank you for feedback, it has been noted.	#N/A	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. However, it has been indicated through industry feedback that this remains a relevant topic. The availability of the Mariners Handbook, Routing Charts and weather routing services does not remove the requirements for seafarers to analyse the features of the major global climate zones.
Your Feedback - Outcome 3	#N/A	Agree that no change to the way that this topic is currently taught is required	#N/A	#N/A	#N/A	#N/A	TOO MUCH DETAIL; all focus to be on interpreting weather forecasts and application of the information they contain.
Sub-Group 1.2 Response	#N/A	Thank you for feedback, it has been noted.	#N/A	#N/A	#N/A	#N/A	Thank you for your feedback, it has been noted. However, it has been indicated through industry feedback that this remains a relevant topic.
Your Feedback - Outcome 4	#N/A	the contextualisation and case studies on ocean weather outing and weather and the effect of sea conditions on passage are considered desirable	#N/A	More simulator time required in different weather conditions and how this affects navigation as well as work on deck, sea stowing etc.	#N/A	#N/A	Agree
Sub-Group 1.2 Response	#N/A	Thank you for feedback, it has been noted.	#N/A	Thank you for feedback, it has been included in the module.	#N/A	#N/A	Thank you for feedback, it has been noted.
Your Feedback - Outcomes Above and Beyond	#N/A	Do not agree that this is an area where there needs to be an increased focus on electronic resources and am opposed to the introduction 'data Science Skills' as a specific and examinable topic or part of formal Cadet assessment unless and until such changes are adopted by IMO in STCW.	#N/A	#N/A	Data Science Skills- please introduce a Microsoft Excel specific outcome. Excel is used by all members of the deck department on board, and many of my cadet peers have never used the software.	#N/A	Human Element to have a Command, Leadership, Management, Coaching and Mentoring spin on it at all times in a Bridge environment.
Sub-Group 1.2 Response	#N/A	Thank you for feedback, it has been noted. This is a topic which we are looking to introduce above an beyond the requirements of STCW, in order to future proof the skills of seafarers. It will be included as a UK recommendation as part of the IMO's comprehensive review of STCW.	#N/A	#N/A	Thank you for feedback, it has been noted. This learning outcome is proposing a general topic to be covered as opposed to the specific detail within that topic. However, the use of data analytics tools is expected to be covered.	#N/A	Thank you for feedback, agreed and noted.
Your Proposed Outcome	Include weather in Port in addition to on passage. Include sources on local weather anomalies in-monitoring, mooring, actions etc	#N/A	Ensure that Cadets fully understand that regardless of the electronic advances made in the industry, the seaman's day is still governed by the weather conditions.	#N/A	#N/A	#N/A	Thanks for publishing these surveys, we appreciate being asked our opinion; the questions are not very well laid out though and difficult to analyse.
Your Rationale for this outcome	Important operational needs	#N/A	Ensuring that the understanding, interpreting, and decision making process based on weather information - both present and future - remains one of the core values and skills of any ships Deck Officer whilst they have have the watch.	#N/A	#N/A	#N/A	#N/A
Your Action for this outcome	Include into syllabus	#N/A	To keep looking out the window! Plus the fundamental need to go and "feel" the weather. I have been fortunate to have only had to endure an enclosed bridge only once in my career, whoever thought this design was a good idea was no former ships Officer or Master. Only by taking regular steps outside the bridge into the real environment, can the Officer truly get an accurate impression of the weather conditions that their vessel is sailing in, and into.	#N/A	#N/A	#N/A	#N/A
Sub-Group 1.2 Response	Thank you for feedback, agreed and noted. This is already covered through the detail within multiple modules of the syllabus and the Training Record Book.	#N/A	Thank you for feedback, we will ensure that understanding, interpreting, and decision making process based on weather information remains an important part of the syllabus.	#N/A	#N/A	#N/A	Thank you for feedback, it is much appreciated.