Council of the European Union
General Secretariat



**Brussels, 05 November 2025**

**WK 14960/2025 INIT**

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**WORKING DOCUMENT**

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| From: | General Secretariat of the Council |
| To: | Working Party on Shipping |
| Subject: | Preparation of IMO/HTW 12 (London, 23-27 February 2026) – Draft Union submission to the 12th session of the International Maritime Organization's Sub-Committee on Human Element, Training and Watchkeeping proposing amendments to the 1978 STCW Convention and Code in relation to Chapter II and III and the use of simulators as part of the approved training programme - Presidency compromise |

In view of the Shipping Working Party meeting on 10 November 2025, delegations will find attached a Presidency compromise proposal concerning the above-mentioned submission.

Changes compared to the Commission proposal (document WK 14269/25) are indicated in **bold underline** (new text) and ~~strikethrough~~ (deleted text).

General scrutiny reservation: all delegations.

Deadline for transmission to the IMO: 21 November 2025.

SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING AND WATCHKEEPING
12th session
Agenda item 6

HTW 12/6/x
[…] 2025
Original: ENGLISH
Pre-session public release: ☒



**COMPREHENSIVE REVIEW OF THE 1978 STCW CONVENTION AND CODE**

**Proposed draft amendments to the 1978 STCW Convention and Code to address gap~~(s)~~ No. 113**

**Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechi<u>a</u> ~~Republic~~, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the European Commission~~, acting jointly in the interest of the European Union~~**

**SUMMARY**

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| *Executive summary:* | This document provides draft amendments to the 1978 STCW Convention and Code, in order to address gap~~(s)~~ No. 113 |
| *Strategic direction, if applicable:* | 6 |
| *Output:* | 6.17 |
| *Action to be taken:* | 5 |
| *Related documents:* | HTW 11/11 and HTW 12/6 |


## Background

1 The Sub-Committee, at its eleventh session, agreed to the list of gaps identified in the STCW Convention and Code, as set out in annex 1 to document HTW 11/WP.4. The Sub-Committee also agreed to the commencement of phase 2 of the comprehensive review (HTW 11/11, paragraphs 6.34 and 6.35).

2 This document provides draft amendments to the 1978 STCW Convention and Code, in order to address gap~~(s)~~ No. 113 in relation to considering the use of simulators as part of the approved training programme and the possibility for Member States to replace seagoing service to a certain extent.

## Information to support the proposed amendments

3 Taking into account the information for the submission of proposals for phase 2 of the comprehensive review of the STCW Convention and Code, as set out in document HTW 12/6 (Secretariat), information to support the proposed amendments, is set out below:

**Information to support the proposed amendments**

| Gap No.[1] 113 | |
|---|---|
| Related documents, if any: | ISWG-STCW 1/2/10; ISWG-STCW 1/2/16 |
| Action requested: | addition |
| Available evidence, data, research, etc., if any, to support the proposed amendments: | See Annex 2 |
| Voluntary assessment on the possible cumulative impact (if the proposal aims at adding new training requirements, provide information on the cumulative impact on seafarer's training/certification and possible measures to address the impact): | Information on the cumulative impact:<br><br>The optional utilisation of approved modern simulator technology may allow seagoing service as part of an approved training programme to be reduced, by achieving the relevant competencies and associated knowledge understanding and proficiency through a structured approach to training and evaluation of competence in a controlled environment at an approved maritime education and training facility.<br><br>Approved simulation will complement the period of on-board training by condensing the period required for prospective officers to acquire the skills necessary to perform a safe navigational watch.<br><br>Overall impact should be a reduction in the length of the maritime education and training programme to achieve the competencies specified in Table A-II/1.<br><br>The possibility for candidates to spend more time on an approved simulator and replacement of seagoing service herewith means improved training on subjects rarely encountered during voyages and even less so during the apprenticeship of a maritime cadet.<br><br>Proposed revision: This measure further provides training institutions with greater flexibility in the organisation of programmes, while recognising that, under defined conditions, simulator training constitutes an effective means of achieving the required standards of competence and ensuring uniformity in the assessment of seafarers. |
| | Possible measures to address the cumulative impact:<br><br>A combination of seagoing service and approved simulation time would form part of a structured training plan which will detail the competencies which are to be achieved at each stage of the programme.<br><br>Include a table indicating the learning goals which may be assessed on a simulator referenced in the training record book and replace the seagoing time. |

## Proposal

4 It is proposed to amend Regulation II/1 and section A-II/1 of the Code as set out in annex I. The proposed amendment will provide Member States the option to use modern simulation technology as part of an approved programme to reduce the period of seagoing service by complementing the onboard training in a condensed format, while still allowing for the current method of not less than 12 months seagoing service as part of an approved

[1] Gap No. is listed in annex to document HTW 12/6.

programme. It is important to emphasise that the replacement of seagoing service with approved simulator training would be a non-mandatory option and that such approved simulator training should always be considered in conjunction with seagoing service, serving as a means to enhance the overall quality of the full/complete training program. In view of the correlation between the different chapters of the STCW Convention and the phased project approach, the submitters anticipate some additional work on this subject will be required once Chapter I, and in particular Regulation I/12 of the Convention and section A-I/12 Part 2 of the Code therein, is under review by the Sub-Committee.

**Action requested of the Sub-Committee**

5 The Sub-Committee is invited to consider the information and proposals in paragraphs 3 and 4; and the annex, and take action, as appropriate.

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## ANNEX 1

### Proposed draft amendment to
### Regulation II/1 and section A-II/1 of the Code

1 Regulation II/1 and section A-II/1 of the Code are proposed to be amended, as follows:

**Regulation II/1**

2.2 have approved seagoing service of not less than 12 months as part of an approved training program which includes onboard training that meets the requirements of section A-II/1 of the STCW Code and is documented in an approved training record book or otherwise have approved seagoing service of not less than 36 months;

2.2.1 A part of the required 12 months of approved seagoing service, not exceeding 3 months, may be substituted by an approved simulator training programme, provided it is equivalent and conducted in accordance with Section A-I/12 and Table A-II/1 of the STCW Code.

**Section A-II/1**

**[Simulator training][2]**

7 Every candidate for certification as officer in charge of a navigational watch on ships of 500 gross tonnage or more, whose simulator training in accordance with paragraph 2.2.1 of regulation II/1 forms part of an approved programme meeting the requirements of this section, shall complete simulator training which:

.1 provides systematic practical instruction and experience in the duties and responsibilities of an officer in charge of a navigational watch, taking into account the methods for demonstrating competence in column 3 of Table A-II/1 and the guidance in section B-II/1 of this Code and;

.2 is supervised, monitored and assessed by qualified simulator instructors and assessors, and;

.3 is documented in a training record book or a similar document.

**Near-coastal voyages**

~~7~~ 8 The following subjects may be omitted from those listed in column 2 of table A-II/1 for issue of restricted certificates for service on near-coastal voyages, bearing in mind the safety of all ships which may be operating in the same waters:

.1 celestial navigation; and

.2 those electronic systems of position fixing and navigation that do not cover the waters for which the certificate is to be valid.

[2] To be decided if this should be under 'Standard of competence' title.

## ANNEX 2

List of documents and scientific evidence as referred to under “Information to support the proposed amendments”:


- HTW 2/INF.2 in 2014
- HTW 4/INF.4 in 2016
- HTW 5/INF.5 in 2018
- HTW 7/INF.6 in 2020
- Fani, Tayebeh and Ghaemi, Farid. (2011). Implications of Vygotsky's Zone of Proximal Development (ZPD) in Teacher Education: ZPTD and Self-scaffolding. Procedia - Social and Behavioral Sciences. 29. 1549–1554. 2011
- D. A. Kolb, Experiential learning: Experience as the source of learning and development. Upper Saddle River, NJ: Prentice Hall, 1984.
- Merrienboer J.GJ. and Kirschner P.A, Ten steps to complex learning, A Systematic Approach to Four-component Instructional Design, EAN9781032333113, 2012.
- L.M. Lunce, Simulations: Bringing the benefits of situated learning to the traditional classroom, Journal of Applied Educational Technology Volume 3, Number 1, 2006.
- C. Sellberg, Training to become a master mariner in a simulator-based environment, Doctoral thesis in Education at the Department of Education, Communication and Learning, University of Gothenburg, ISBN 978-91-7346-944-9, 2017.
- S.K. Renganayagalu, S.C. Mallam, S Nazir and P. Haavardtun, Impact of Simulation Fidelity on Student Self-efficacy and Perceived Skill Development in Maritime Training, The International Journal on Marine Navigation and Safety of Sea Transportation, Volume 13, Number 3, 2019.
- Cicek, C Deniz, A. Kusoglu, and T. Nakazawa, A comparative study of training methods for training and education of marine engineering students, Proceedings of the 2nd General assembly of IAMU, Kobe, Japan, 2001.
- W. Uitterhoeve, D. van Heel, P. Werner, H. van der Ende, The Dutch perspective on the use of simulators and sea time reduction in Maritime Education and Training, 2018.
- J.M. Schraagen, Simulator time and its sea time equivalence, Final report DGSM project 634, 1994.
- F. Stiekema, P. Werner, D. Hiemstra, H. Hummel, Effectiveness of simulator training, the effect of simulator training and seatime on the skill development of maritime engineers. Research article, 2012.
- T. Hays, J.W. Jacobs, C. Prince and E. Salas, Flight simulator training effectiveness: A meta analysis, Journal of Military Psychology, 1992.
- M. Lubner, A. R. Dattel, D. Henneberry, S. DeVivo, Follow-Up Examination of Simulator-Based Training Effectiveness, International Symposium on Aviation Psychology, 2015.

- Somerville , T. Lynar , K. Joiner 1 and G. Wild, Use of Simulation for Pre-Training of Drone Pilots, Drones 2024, doi.org/10.3390/drones8110640, 2024.

- Y. Mori and M. E. Manuel, An exploration of the theoretical foundations of onboard seafarer training: a systematic review of literature, the International Journal on Marine Navigation and Safety of Sea Transportation, 2023.

- International Encyclopedia of the Social and Behavioral Sciences, Cognitive Apprenticeship, 2001.

- Filip Dochy, Mien Segers, Creating impact through future Learning. The High Impact Learning that Lasts (HILL) Model, Book, ISBN (Electronic)9781351265751, 2018.

- EASA, Certification Specifications for Aeroplane Flight Simulation Training Devices, CS-FSTD(A)', Issue 2, 2018.

- IAMU, Quality of On-board Training (OBT), 2016.

- Samrat Ghosh & Gholam Reza Emad (2025) Identifying challenges in designing and implementing a skills and competency framework for future seafarers: a systematic literature review, Australian Journal of Maritime & Ocean Affairs, 17:3, 540-553, DOI: 10.1080/18366503.2024.2356365.

- European Maritime Safety Agency (2024), Study on the identification of specific competences for seafarers on ships using alternative fuels and energy systems, EMSA, Lisbon.

SUB-COMMITTEE ON HUMAN ELEMENT,
TRAINING AND WATCHKEEPING
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HTW 12/6/x
[…] 2025
Original: ENGLISH
Pre-session public release: ☒



# COMPREHENSIVE REVIEW OF THE 1978 STCW CONVENTION AND CODE

## Proposed draft amendments to the 1978 STCW Convention and Code to address gap(s) No. 162 and 166

**Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the European Commission, acting jointly in the interest of the European Union**

**SUMMARY**

| | |
|---|---|
| *Executive summary:* | This document provides draft amendments to the 1978 STCW Convention and Code, in order to address gap(s) No. 162 and 166 |
| *Strategic direction, if applicable:* | 6 |
| *Output:* | 6.17 |
| *Action to be taken:* | 5 |
| *Related documents:* | HTW 11/11 and HTW 12/6 |


### Background

1 The Sub-Committee, at its eleventh session, agreed to the list of gaps identified in the STCW Convention and Code, as set out in annex 1 to document HTW 11/WP.4. The Sub-Committee also agreed to the commencement of phase 2 of the comprehensive review (HTW 11/11, paragraphs 6.34 and 6.35).

2 This document provides draft amendments to the 1978 STCW Convention and Code, in order to address gap(s) No. 162 and 166 in relation to considering the use of simulators as part of the approved training programme at least equivalent to a limited period of onboard training allowing administrations the option to reduce the level of seagoing service to a certain extent.

### Information to support the proposed amendments

3 Taking into account the information for the submission of proposals for phase 2 of the comprehensive review of the STCW Convention and Code, as set out in document HTW 12/6 (Secretariat), information to support the proposed amendments, is set out below:

**Information to support the proposed amendments**

| Gap No.[3] 162 and 166 | |
|---|---|
| Related documents, if any: | ISWG-STCW 1/2/10; ISWG-STCW 1/2/11; ISWG-STCW 1/2/16 |
| Action requested: | addition |
| Available evidence, data, research, etc., if any, to support the proposed amendments: | See Annex 2 |
| Voluntary assessment on the possible cumulative impact (if the proposal aims at adding new training requirements, provide information on the cumulative impact on seafarer's training/certification and possible measures to address the impact): | Information on the cumulative impact:<br><br>The optional utilisation of approved modern simulator technology may allow the period of combined workshop skills training and seagoing service as part of an approved training programme to be reduced, by achieving the relevant competencies and associated knowledge understanding and proficiency through a structured approach to training and evaluation of competence in a controlled environment at a maritime education and training facility.<br><br>Approved simulation training will complement the level of on-board training by condensing the period required for prospective officers to acquire the skills necessary to perform a safe engineering watch.<br><br>Overall impact should be a reduction in the length of the maritime education and training programme to achieve the competencies specified in Table A-III/1.<br><br>The possibility for candidates to spend more time on an approved simulator and replacement of seagoing service herewith means improved training on subjects rarely encounter during voyages and even less so during the apprenticeship of a maritime student.<br><br>This measure further provides training institutions with greater flexibility in the organisation of programmes, while recognising that, under defined conditions, simulator training constitutes an effective means of achieving the required standards of competence and ensuring uniformity in the assessment of seafarers. |
| | Possible measures to address the cumulative impact:<br><br>A combination of seagoing service and approved simulation time would form part of a structured training plan which will detail the competencies which are to be achieved at each stage of the programme.<br><br>Include a table indicating the learning goals which may be assessed on a simulator referenced in the training record book and replace the seagoing time. |

## Proposal

4 It is proposed to amend Regulation III/1 and section A-III of the Code as set out in annex I. The proposed amendment will provide administrations the option to use modern simulation technology as part of an approved programme to reduce the period of seagoing service by introducing simulator-based training. This intensive simulator training allows a

[3] Gap No. is listed in annex to document HTW 12/6.

prospective officer to acquire the necessary skills and competencies for officer in charge of a engineering watch over a shorter timeframe while complementing the period of onboard training. The proposal recognises advances in maritime education and training taking due account of the research and data gathered by administrations who have introduced the proposed methodology under the provisions of Article IX, while continuing to allow for the current method of not less than 12 months combined workshop skills training and seagoing service as part of an approved programme. It is important to emphasise that the replacement of seagoing service with approved simulator training would be a non-mandatory option and that such approved simulator training should always be considered in conjunction with seagoing service, serving as a means to enhance the overall quality of the full/complete training program. In view of the correlation between the different chapters of the STCW Convention and the phased project approach, the submitters anticipate some additional work on this subject will be required once Chapter I, and in particular Regulation I/12 of the Convention and section A-I/12 Part 2 of the Code therein, is under review by the Sub-Committee.

**Action requested of the Sub-Committee**

5 The Sub-Committee is invited to consider the information and proposals in paragraphs 3 and 4; and the annex, and take action, as appropriate.

***

## ANNEX I

**Proposed draft amendment to**
**Regulation III/1 and section A-III/1 of the Code**

1 Regulation III/1 and section A-III/1 of the Code are proposed to be amended, as follows:

**Regulation III/1, paragraph 2**

.2 have completed 12 months of approved combined workshop skills training and an approved seagoing service of which a part not exceeding 3 months seagoing service, may be substituted by an approved simulator training programme, provided it is equivalent and conducted in accordance with Section A-I/12 and Table A-III/1 of the STCW Code as part of an approved training program which includes onboard training that meets the requirements of section A-III/1 of the STCW Code and is documented in an approved training record book, or otherwise have completed combined workshop skills training and an approved seagoing service of not less than 36 months of which not less than 30 months shall be seagoing service in the engine department;

.3 have performed, during the required seagoing service, engine-room watchkeeping duties under the supervision of the chief engineer officer or a qualified engineer officer for a period of not less than six months;

**Section A-III/1**

**[Simulator training][4]**

3 Every candidate for certification as officer in charge of an engineering watch on ships of 750kW or more, whose simulator training in accordance with paragraph 2.2 of regulation III/1 forms part of an approved programme meeting the requirements of this section, shall complete
training which:

.1 provides systematic practical instruction and experience in the duties and responsibilities of an officer in charge of an engineering watch, taking into account the methods for demonstrating competence in column 3 of Table A-III/1 and the guidance in section B-III/1 of this Code and;
.2 is supervised, monitored and assessed by qualified simulator instructors and assessors, and;
.3 is documented in a training record book or a similar document.

**Standard of competence**

~~3~~ 4 Every candidate for certification as officer in charge of an engineering watch in a manned engine-room or as designated duty engineer in a periodically unmanned engine-room on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more shall be required to demonstrate ability to undertake, at the operational level, the tasks, duties and responsibilities listed in column 1 of table A-III/1.

[4] To be decided if this should be under 'Standard of competence' title.

## ANNEX 2

List of documents and scientific evidence as referred to under “Information to support the proposed amendments”:


- HTW 2/INF.2 in 2014
- HTW 4/INF.4 in 2016
- HTW 5/INF.5 in 2018
- HTW 7/INF.6 in 2020
- Fani, Tayebeh and Ghaemi, Farid. (2011). Implications of Vygotsky's Zone of Proximal Development (ZPD) in Teacher Education: ZPTD and Self-scaffolding. Procedia - Social and Behavioral Sciences. 29. 1549–1554. 2011
- D. A. Kolb, Experiential learning: Experience as the source of learning and development. Upper Saddle River, NJ: Prentice Hall, 1984.
- Merrienboer J.GJ. and Kirschner P.A, Ten steps to complex learning, A Systematic Approach to Four-component Instructional Design, EAN9781032333113, 2012.
- L.M. Lunce, Simulations: Bringing the benefits of situated learning to the traditional classroom, Journal of Applied Educational Technology Volume 3, Number 1, 2006.
- C. Sellberg, Training to become a master mariner in a simulator-based environment, Doctoral thesis in Education at the Department of Education, Communication and Learning, University of Gothenburg, ISBN 978-91-7346-944-9, 2017.
- S.K. Renganayagalu, S.C. Mallam, S Nazir and P. Haavardtun, Impact of Simulation Fidelity on Student Self-efficacy and Perceived Skill Development in Maritime Training, The International Journal on Marine Navigation and Safety of Sea Transportation, Volume 13, Number 3, 2019.
- Cicek, C Deniz, A. Kusoglu, and T. Nakazawa, A comparative study of training methods for training and education of marine engineering students, Proceedings of the 2nd General assembly of IAMU, Kobe, Japan, 2001.
- W. Uitterhoeve, D. van Heel, P. Werner, H. van der Ende, The Dutch perspective on the use of simulators and sea time reduction in Maritime Education and Training, 2018.
- J.M. Schraagen, Simulator time and its sea time equivalence, Final report DGSM project 634, 1994.
- F. Stiekema, P. Werner, D. Hiemstra, H. Hummel, Effectiveness of simulator training, the effect of simulator training and seatime on the skill development of maritime engineers. Research article, 2012.
- T. Hays, J.W. Jacobs, C. Prince and E. Salas, Flight simulator training effectiveness: A meta analysis, Journal of Military Psychology, 1992.

- M. Lubner, A. R. Dattel, D. Henneberry, S. DeVivo, Follow-Up Examination of Simulator-Based Training Effectiveness, International Symposium on Aviation Psychology, 2015.

- Somerville, T. Lynar, K. Joiner 1 and G. Wild, Use of Simulation for Pre-Training of Drone Pilots, Drones 2024, doi.org/10.3390/drones8110640, 2024.

- Y. Mori and M. E. Manuel, An exploration of the theoretical foundations of onboard seafarer training: a systematic review of literature, the International Journal on Marine Navigation and Safety of Sea Transportation, 2023.

- International Encyclopedia of the Social and Behavioral Sciences, Cognitive Apprenticeship, 2001.

- Filip Dochy, Mien Segers, Creating impact through future Learning. The High Impact Learning that Lasts (HILL) Model, Book, ISBN (Electronic)9781351265751, 2018.

- EASA, Certification Specifications for Aeroplane Flight Simulation Training Devices, CS-FSTD(A)', Issue 2, 2018.

- IAMU, Quality of On-board Training (OBT), 2016.

- Samrat Ghosh & Gholam Reza Emad (2025) Identifying challenges in designing and implementing a skills and competency framework for future seafarers: a systematic literature review, Australian Journal of Maritime & Ocean Affairs, 17:3, 540-553, DOI: 10.1080/18366503.2024.2356365.

- European Maritime Safety Agency (2024), Study on the identification of specific competences for seafarers on ships using alternative fuels and energy systems, EMSA, Lisbon.