**ANNEX 1**

**PRELIMINARY LIST OF SPECIFIC AREAS IDENTIFIED FOR THE COMPREHENSIVE REVIEW OF THE STCW CONVENTION AND CODE**

The below areas in the STCW Convention and Code are identified for the comprehensive review. The scope of work specified for each area is based on preliminary assessment of the relevant issues however, to be comprehensive, the scope should include all pertinent issues and provisions of the STCW Convention and Code, including the articles.

**1      Emerging technologies on ships and ship operations**

Technological developments in shipping, as well as environmental challenges, have provided the industry with new types of vessels, equipment, propulsion, energy sources and manoeuvring and operations, which may require new standards of competence, functions, and levels of responsibility.

Action:  Review existing standards and determine the need for a new requirement to address provisions established by IMO and other relevant instruments, taking into account current and future work.

**2      Digitalization of documentation, including certificates issued under STCW**

The utilization of electronic documents in the maritime industry will demand modifications in the traditional issuance and processing of documentation issued under STCW. This also includes validation and authentication of certificates.

Action:  Review provisions in the Convention and Code concerning documentation issued under STCW to facilitate the utilization of electronic documentation. (Reference to MSC.1/Circ.1665)

**3      Emerging technologies in education and training**

With the experience already gained in using digitalization and emerging technologies in education and training, it is envisaged that further use of those technologies will continue. Therefore, a review of the existing provisions in the STCW Convention and Code would allow for the expansion of teaching and teaching aids to supplement and support shore-based training, methods for assessment of competence, and approval and monitoring of training programmes including those outside the jurisdiction of the Party.

Action:  Review and determine the need to amend existing standards and guidance to incorporate emerging instructional and assessment techniques such as distance learning, and improve the quality and flexibility of onboard training, shore-based and workshop skills training, including use of simulators.

**4      Facilitation, flexibility and quality of onboard, shore-based and workshop skills training, including use of simulators**

It is important to focus on facilitating and improving the quality of onboard and workshop skills training and seagoing service required in different chapters of the Convention, also taking into account up-to-date learning technologies, including additional use of simulators.

Action:  Review and determine the need to amend existing standards and guidance to incorporate emerging instructional and assessment techniques, and improve the quality and flexibility of onboard training, distance learning, shore-based and workshop skills training, including use of simulators.

**5       Flexibility and efficiency in implementation of new training requirements and reduction of administrative burdens**

It is important that amendments related to new training standards, particularly those emanating from amendments to other IMO instruments, enter into force in the shortest possible time.

Action:   Review the current text of the STCW Convention and Code and identify the provisions that should be addressed in order to provide for a viable and efficient amendment process. This would allow any changes in standards of education and training, including KUPs stemming from the introduction of new technologies in ships and shipping operations, to be incorporated seamlessly and swiftly.

**6       Requirements for sea time or practical experience in relation to new and emerging technologies including the use of simulation**

New and emerging technologies may support training and certification of seafarers. This could include the use of simulations as an alternative to a portion of a of a requirement for seagoing service. In addition, considering the initial phase, the training and certification of seafarers often precede the implementation or installation of these new technologies on ships.

Action:   Review the STCW Convention and Code to determine the appropriateness of seagoing service requirements for training and certification and the feasibility of meeting requirements using new and emerging technologies, considering that in an initial phase, the training and certification of seafarers often precede the implementation or installation of these new technologies on ships. This may include consideration of the use of simulation as an alternative to a portion of a requirement for seagoing service.

**7       Psychological safety, bullying and harassment, including SASH, gender diversity and gender sensitization**

The review and revision of the STCW Convention and Code should be done in parallel with the work already initiated on the development and finalization of training provisions on psychological safety, bullying and harassment in the maritime sector, including sexual assault and sexual harassment. Furthermore, the responsibilities of companies should be reviewed to consider responsibility for psychologically safe working environments including the prevention of bullying and harassment.

Action:   Review the STCW Convention to consider incorporating psychological safety, bullying and harassment, including SASH, gender diversity and gender sensitization into the training requirements for seafarers.

**8       Mental health**

In order to reduce the stigma of mental health issues, it should be considered to require appropriate competence so that seafarers understand the impact of living and working at sea and can recognize and triage a mental health challenge that may arise while on board a ship. The comprehensive review of the STCW Convention and Code should identify tools and methods to allow seafarers to recognize risk factors and know how and when to search for appropriate help. Furthermore, the responsibilities of companies should be reviewed to consider responsibility for the promotion of mental health and well-being on board ship.

Action:   Review the STCW Convention to consider incorporating mental health concepts into the training requirements for seafarers.

**9      Twenty-first century and interpersonal skills**

Action:  Review the STCW Convention and Code for the need to address twenty-first century competence and interpersonal skills, such as digital skills, communications, information management and the ability to adapt to a changing work environment.

**10     Addressing inconsistencies**

A significant number of inconsistencies were identified in the text of the annex to the STCW Convention and Code. Many of those are a consequence of amendments that were adopted at different times. The above may lead to ineffective implementation of the STCW Convention. Thus, the Parties to the STCW Convention and those involved in implementing, applying or enforcing its measures may not always give to the STCW Convention in a uniform manner.

Action:  Review STCW provisions to address inconsistencies, duplications, and different interpretations.

**11     Addressing different interpretations**

Different interpretations of the requirements have been identified which result in inconsistency in implementation and possible confusion. The comprehensive review would give the opportunity to clarify issues arising from inconsistent interpretations of the various standards, including those related to near-coastal voyages, in particular, the entering of an undertaking among Parties. It is also important to review and identify new and existing definitions for a more unison interpretation of the STCW Convention and Code.

Action:  Review STCW provisions to address inconsistencies, duplications, and different interpretations.

**12     Addressing taxonomy and terminologies**

The newly developed action verb taxonomy in appendices 4 and 5 of the *Guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15/Rev.2) should be considered when reviewing the STCW Convention and Code in order to ensure the consistency of the wording used in the STCW Convention and Code defining the standards of competence with the action verbs used in modern educational systems.

Action:  Review STCW provisions to address taxonomy and terminologies.

**13     Flexibility in revalidation of certificates and endorsements**

A comprehensive review of the STCW Convention and Code would allow for the identification of provisions that could be amended or new provisions that would need to be added to provide flexibility in revalidation and renewal of certificates, endorsements, and medical certificates, including whenever exceptional circumstances may occur.

Action:  Review STCW provisions to consider incorporating flexibility and provisions for revalidation of certificates and endorsements in normal and exceptional circumstances.

**14    Overview of the implementation of the Convention, in particular the need to update the STCW "White List"**

Following the ongoing work of the HTW and III Sub-Committees, the review of the STCW Convention and Code should consider the need for clarification on the provisions related to quality standard systems, independent evaluation, and the preparation, reporting and consideration of information and identification of STCW compliance Parties for common understanding and uniform implementation.

Action:   Review the Convention oversight infrastructure to clarify the process to identify parties that are giving the convention full and complete effect.

**15    Lessons learned**

Action:   Review the STCW Convention and Code to take into account issues based on experience, including experience implementing previous amendments, casualty investigations and lessons learned during the COVID-19 pandemic, inter alia, extension of the validity of the certificates, in extraordinary circumstances/cases of force majeure.

**16    Flexibility**

Action:   Review STCW Convention and Code to consider facilitating to the possible extent the mobility of seafarers across different ship types and trades and conventions.

**17    Alternative certification under chapter VII**

Review chapter VII of the STCW Convention and Code to determine whether a revision is needed for more effective utilization of alternative certification as part of the flexibility needed to accommodate new and emerging technologies and organizational innovations, as well as the option for certifying different functions on board and different types of ships and taking a more goal-based approach.

Action:   Review STCW provisions to use alternative certification in support of emerging technologies and other organizational changes.

**18    Watchkeeping arrangements and principles to be observed (chapter VIII)**

Review regulation VIII/2 of the Convention and sections A-VIII/2 and B-VIII/2 of the Code with a view to formulating these provisions in a goal-based manner to enable the accommodation of new and emerging technologies and organizational innovations.

Action:   Review STCW provisions related to watchkeeping to support the use of emerging technologies and other organizational changes.

**19    Alignment of STCW with requirements placed on ships, seafarers, and shipowners by other IMO and relevant international instruments**

Action:   Review the STCW Convention and Code to ensure, where necessary, that both are fully aligned with requirements placed on ships, seafarers, and shipowners by IMO and other relevant international instruments.

**20      Cybersecurity**

Action:   Review the STCW Convention and Code to consider an approach to addressing the need for cybersecurity awareness for seafarers, especially as maritime operations become more reliant on the digitally integrated and automated systems.

**21      Implementation and transitional provisions**

The implementation of any amendments developed under this review must be reasonable and achievable for all Parties. Previous difficulties in meeting requirements by established effective dates due to the lengthy process associated with the multiple steps that must be taken to fully implement any new requirements should be considered.

Action:   Review transitional provisions to ensure efficient implementation of respective amendments

**22      Addressing outdated training requirements**

Action:   Review the tables of competence in the STCW Code to identify the need to update competences, KUPs, and training requirements that are outdated and no longer relevant.

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