

## MARITIME ENGLISH IN VIEW OF STCW 2010

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**Abstract:** *Despite a widespread recognition that safety at sea and competency in English are inextricably linked, it is often the technical side of training rather than the acquisition of linguistic competence which is seen as a priority at maritime colleges and institutes. Today some may argue the importance and necessity of maritime English in view of increased automation of navigational systems, computers which may well speak directly to other computers in order, for example, to bring a ship successfully into port, so eliminating the human element in communication entirely. STCW 2010 Amendments including mandatory training for BRM, ECDIS, and Leadership as well as other non-mandatory trainings are welcomed by the Industry. New competency requirements such as Ice Navigation, Cargo Handling in Oil/Chemical Tankers, Dynamic Positioning Systems, Ship Safety Officer, Incident Investigation, Engine Resource Management, Energy Conservation, Crises Management, Leadership and Teamwork, Anti-Piracy Measures, etc have also introduced new terminologies along.*

*This paper intends to discuss whether existing Maritime English standards and curricula are adequate to cover multinational and multicultural competency issues as a “Lingua Franca” to develop leadership skills, reveal & develop management styles, achieve efficient communication, produce effective teamwork, understand situational awareness, use standard operating procedures & checklists, understand mental abilities and limitations, e.g. memory, workload, competence, confidence, etc. enhance the quality of decision making, understand health issues: fatigue, stress, nutrition, and human resources challenges for continuity, competence and culture to focus on the significance of human capital in the sustainability and development of the shipping industry in view of STCW2010 amendments.*

**Key words:** MET, STCW2010, Maritime English, human resources management, leadership

### 1. INTRODUCTION

Despite a widespread recognition that safety at sea and competency in English are inextricably linked, it is often the technical side of training rather than the acquisition of linguistic competence which is seen as a priority at maritime colleges and institutes.

IMO's Standard Marine Communication Phrases (SMCP) which was adopted by the 22nd Assembly in November 2001 as resolution A.918 (22) IMO Standard Marine Communication Phrases, builds on a basic knowledge of English and has been drafted in a simplified version of maritime English. It includes phrases for use in routine situations such as berthing as well as standard phrases and responses for use in emergency situations under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended. But, how much longer will it be needed? With increased automation of navigational systems, computers may well speak directly to other computers in order, for example, to bring a ship successfully into port, so eliminating the human element in communication entirely.

And is it only the internal and external (radio) communications we are dealing with? Vangehuchten, et al. (2010) propose that it is not only the multilingual but also multicultural character of crew's leads to miscommunication on board and emphasize that it can also have negative repercussions on the morale of the crew and their working environment. One of the main aims of the shipping industry is to retain the work force by keeping high morale of the crew as well as attracting new ones to the sector. Therefore intercultural contents of communication should be considered in a holistic approach.

Moreover the increasing importance of ICT in communication for maritime purposes is another paradox as oral communication is increasingly being replaced by electronic mail and formatted messages. Initiatives such as automatic speech translation, a technology that combines speech recognition and automatic translation may have adverse effects on language skills, which are vital to overcome cultural and language barriers and interact effectively, harmoniously and productively on board, while enhancing radio communications.

Despite the wide range of methods, all of the automatic translation processes pose problems that are not associated with the technology, but rather with the language.

Linguistic problems related to translation are those that deal with lexical ambiguity, syntactic complexity, the difference of vocabulary between languages, and elliptical or incorrect grammar constructions (de la Campa Portela, 2010). Therefore it does not seem very likely that these systems would replace the human element in the near future to diminish the importance of (Maritime) English even for external communications.

The research by The Seafarers International Research Centre on maritime communication (Kahveci, Lane and Sampson, 2002), confirms that language was not the only problem in maritime accidents. Cultural differences in a mixed crew involving, for example, different meanings and emphasis being applied to the same words and ways of communication also cause friction and lead to accidents.

In view of STCW 2010 amendments new questions arose whether existing Maritime English standards and curricula would be able to cover multinational and multicultural issues to develop leadership skills, reveal & develop management styles, achieve efficient communication, produce effective teamwork, understand situational awareness, know to use standard operating procedures & checklists, understand mental abilities and limitations, e.g. memory, workload, competence / confidence, etc. enhance the quality of decision making, understand health issues: fatigue, stress, nutrition, etc., human resources challenges for continuity / competence / culture to focus on the significance of human capital in the sustainability and development of the shipping industry. These sophisticated competencies will definitely require in depth knowledge and very good command of English language which is quite beyond the generally accepted maritime English norms.

### 2. MISHAPS DUE TO COMMUNICATION PROBLEMS

It is evident from studies of maritime accident reports where, in the chain of causation, ‘human error’ has been identified as a significant factor. That it is possible to break down this category further and to identify that crew communication failure (human – group) has played a key role in the incidents. Poor communication even between crewmembers from the same culture who are speaking the same language can, through misunderstandings and mistakes, be a threat to the overall safety of a vessel and pose an additional threat if one considers the risk of subsequent pollution.

If one adds the additional variables of crews using English as a second language and the cultural differences which may be experienced, then the odds of miscommunication may be increased. Human Communicative Error can be defined as Human Error which occurs as a result of a failure in communication, be it ship to ship, ship to shore or intra-ship (Pyne and Koester, 2005). Therefore overall command in English which is the working language at sea becomes more important than the maritime English which is generally taken in a limited context. In the incident which occurred on board the M/V Sally Mærsk in June 2000 on a voyage from Hong Kong to Long Beach, a repairman from Poland suffered from pain in his back and fever. Due to poor English language skills he asked his colleague – another repairman from Poland – to act as an interpreter for him during the medical consultation with the chief officer. The sick repairman had an injury in his back few days ago. His colleague was aware about this and assumed that the pain was caused by the injury. The sick repairman explained and asked his colleague to translate that he had pain and felt sick with fever, but the information about fever was lost in the translation and the chief officer got the impression that the problem was the pain assumable caused by the injury. The chief officer prescribed mild pain killers as the only treatment. The Polish repairman paid several visits to the sick repairman in the following two days. The sick repairman complained about his illness and the fever which had become worse. During the last visit the sick repairman seemed to be asleep and his colleague left him without talking to him. Later that day the sick repairman was found dead and the cause of death was pneumonia (Pyne and Koester, 2005).

The recent Sub-Committee (STW 41/6) report on the fire on the fishing factory vessel Hercules also highlights the need for a common working language to ensure effective communication on board among other reasons. A close investigation of casualty analyses considered approved by IMO (sub-committee minutes, 12th session) particularly focusing on the causes of accidents clearly indicates that standards are not applied correctly and when human factor issues are studied carefully there are omissions in the education and training programmes received by the seafarers involved in accidents (Brady, 2008). Therefore, it is believed that, especially in view of new STCW competencies, MET programmes must concentrate on the interface between humans in relation to communication between crew members by enhancing general knowledge in English together with socio-cultural aspects of the multi-cultural environment.

### **3. FACTORS RELATED TO THE INTERFACE BETWEEN HUMANS IN RELATION TO COMMUNICATION BETWEEN CREW MEMBERS**

Intercultural communicative competence is vital because people's communication styles are inherently culturally bound. The STCW convention and its amendment in 1995 theoretically dissolved such divides as value and culture in training and education which brought in the first inclusion of specific requirements for English Language certification. Communication lapses identified as Human Error in the causal chain of accidents have led to the use of English as the common language under the revised STCW Convention 1995 (Pyne and Koester, 2005).

Following the recent “Comprehensive Review of the STCW Convention and the STCW code”, the IMO has also made amendments to the STCW. The amendments, which were approved at the Diplomatic Conference held in Manila, Philippines in June 2010, include some changes and additions of a linguistic nature. The linguistic amendments emphasise the IMO's desire to focus on communication as the “building blocks” which ensure effective and safe working conditions at sea (Vangehuchten, et.al. 2010).

The need for clear verbal communications between parties in the commercial marine environment is multi-faceted as the ship is the working environment, learning environment

and social environment for its personnel. Communication on an intra-ship level takes place daily between personnel during operation of the vessel – when giving and carrying out orders under “normal” or “emergency” situations – and when the multinational crew must interact to maintain “social harmony” in an off duty context and in their everyday “teamwork” to ensure effective day to day operation (Pyne and Koester, 2005).

Metze and Nystrup defined four dimensions of verbal communication in a professional context. Any communication sequence (conversation, statement, order, question, answer) analyzed according to these four dimensions:

1. Cognitive (knowledge and sense, exchange of exact information) – affective (feelings and intuition)

2. Expanding (long conversation or dialogue, questions which lead to comprehensive answers) – limiting (closing the conversation as quickly as possible, short answers, yes/no)

3. Confronting (focus on problems and conflicts) – concealing (hiding problems and conflicts)

4. Listening (paying attention to what is said and showing that by gestures or answers) – not listening (not paying attention, indifferent, no eye contact)

In most professional contexts the communication is preferred to be cognitive, confronting and listening. It whether the communication should be expanding or limiting varies depending upon the context and purpose of the communication. The command/confirm-communication, which is used on the bridge, is an example of limiting communication, which - of course -is appropriate in the given situation (Pyne and Koester, 2005). However, the importance of affective and expanding conversations cannot be ignored when we consider “social harmony” in an off duty context which is equally important to daily routine and teamwork operations. Pritchard suggests that native speakers are often too complacent about their language use and their role in the conversation. They often expect the other station to be fully situationally, culturally and linguistically ‘integrated’. This is proved by the native speaker's negligence of standardised forms of communicating or lack of awareness of the existence of SMCP – the language standard for communicating at sea (Pritchard, 2010). Therefore command of general English and possible interference with the mother tongue becomes an important issue even for VHF radiotelephone communication using proper SMCP.

Good communication isn't created by efficiency or influence. It is created by connection, interaction, balance and understanding. Interaction involves both social and personal input, and forms the basis of the vast majority of everyday talking. Interaction involves emotions, creativity, agreement, disagreement, people waiting patiently to get a word in, sighing, nodding, gesticulating and so on. Interaction is not waiting to be asked a question. Interaction is not giving a short, one-word answer to a question. The importance of developing cultural competence in maritime professionals is increasingly being recognized. Seafarers seek knowledge to help them cope with the growing diversity of their employers, leaders and colleagues. However, even though requirements designed to address cultural competence are incorporated into maritime curricula, the institutional culture of maritime education systematically tends to foster static and essentialist conceptions of “culture” as applied to seafarers (Chirea-Ungureanu, 2010).

### **4. MAJOR INITIATIVES FOR ENHANCED MARITIME ENGLISH**

What do we want our officers to do tomorrow that they're not doing today? Why and how? Much more importantly, what does the companies/flag states/industry want people to be doing? And most important of all, what do the officers themselves have to say on the issue? The cost effective way of operating our ship depends on various issues such as; safety/environmental culture, minimum accidents/incidents, minimum maintenance & repair costs, zero detention from PSC Inspections, Energy Efficiency

(EEDI□EEOI□SEEMP) and minimum remarks from vetting and the other inspections which all require usage of general English at varying degrees and competency levels. There is several detention stories around which were resulted from solely miscommunication between ship crew and PSC Inspectors not of lack of maritime terminology but due to inability to explain the situation in general terms. The shipping companies are required to operate their fleet in a cost effective way by adequate crew on board, cope with the industries endless requirements, rules and regulations, and to handle enormous information explosion. Will existing Maritime English context enable officers to cope with the industries endless requirements and to handle enormous information explosion? Do we have to wait for the translation of continuously updated international regulations and circulars in to national languages and inclusion of the new terminology in to maritime English curricula? In view of Maritime English, several EU Projects such as MarEng, MarEng Plus and MarTEL have contributed a lot under the existing STCW standards to enhance maritime communications. There is a challenge to keep the materials up-to-date in the future. STCW2010, MLC 2006, PSC NIR, flag state requirements, environmental requirements, international conventions, circulars, etc., are continuously bringing new requirements on MET. MET Institutions have to follow several implementations of various organizations as well such as OCIMF (Oil Companies International Marine Forum), Vetting Inspections, TMSA (Tanker Management and Self Assessment), Operational Requirements, P & I and class requirements. STCW 2010 Amendments including mandatory training for BRM, ECDIS, and Leadership as well as other non-mandatory trainings are welcomed by the Industry. New competency requirements such as Navigation in Ice, Cargo Handling in Oil/Chemical Tankers, Ship Safety Officer, Incident Investigation, Engine Resource Management, Volatile Organic Compounds, Energy Conservation, Management of Change, Ship to Ship Transfer, Crises Management, Leadership, Anti-Piracy Measures, etc have also introduced new terminologies along which all are believed to be beyond the traditional maritime English standards.

#### **5. STCW 2010 COMPETENCY REQUIREMENTS**

If we go a little more deeply in STCW 2010 we will see that it gives the pre-assessment, training, evaluation, refresher and update trainings to the responsibilities of the shipping companies, highlights the importance of training on board, evaluation of the attitude, knowledge and skills by the senior officers, enforces to create a safety and environment culture fleet wide, gives importance to the social life onboard, and advises the ship specific trainings.

There is huge amount of dynamic information flow in addition to the standard training requirements. Can a junior officer meet the expectations of this highly professional industry with the training he/she had from a standard MET institution? Considering the multi-national and multi-cultural character of the ship crew onboard training duties and social responsibilities will certainly require excellent command of English as well as sound understanding on sociocultural issues. MET Institutions now need to adopt their curricula to meet the new requirements relating to training in modern technology such as electronic charts and information systems (ECDIS); new requirements for marine environment awareness training and training in leadership and teamwork; new training and certification requirements for electro-technical officers; new requirements for security training, as well as provisions to ensure that seafarers are properly trained to cope if their ship comes under attack by pirates; new training guidance for operating Dynamic Positioning Systems. STCW 2010 emphasizes Leadership and Management which requires planning for leadership and talent development, effective communication, assertiveness and motivation. Additionally, new concepts such as personal development, reflection,

culture and gender issues, and core values, team skills, connecting resource management to workforce involvement, situational awareness, decision making, health issues, and professional conduct are becoming vital parts of the MET at all levels.

#### **6. CONCLUSIONS**

European integration and the creation of a united economic area has resulted in convergence of legislation of EU countries as well as the candidate countries as a first step towards the harmonization of different national conditions and standards that now have to be incorporated into a single environment. Safety at work constitutes one of the EU's most important social policies. The Lisbon European council stressed that Europe was going through a transition to a knowledge based economy, marked by profound changes effecting society, employment and safety at work. European Commission's recent adaptation of "investment in people" and Commission's "investment in quality" are two policies that the proposed programmes are supporting. The EU strategy relating to both policies is based on consolidating a culture of risk prevention as well as on combining a variety of tools, with training and awareness, being the most important ones. For the maritime industry, which is completely in international nature, these core values have utmost importance beyond national/continental borders. The challenge faced by the maritime industry today is less of number of the seafarers but more of continuity, competence, and culture. Continuity relates to retention of human capital within an organization and within the industry which is the key for sustainable fleet operational performance. Safety, reliability and sustainability of the maritime business rely on a stable and competent workforce who is committed to their career and to their employers. It is our collective responsibility in the industry to attract and retain the smartest and the brightest through focused human resources initiatives to realize the full professional and personal potential of the seafarers' competence. Some progressive institutes have already taken note of the importance of lifelong learning based on needs and all-round development to provide tailor-made training programs. The recent trend towards competency based model of human resources developments is a step in the right direction. Culture relates to inculcation of a sense of identity with a company / the industry, and involves extensive communication and leadership in action which reflects a set of shared values and practices. In summary, the culture is effectively the character of a company / the industry as it relates to from a seafarer's perspective. To encourage the sense of identity and belonging in the heart and mind of seafarers, it is important to:

- ensure a sense of togetherness with them
- align the organizational values, mission, vision, and key principles at all levels from shore
  - to ship with the internal process, policy, and strategies
  - integrate sea side with shore side operations to enhance seafarers understanding of the entire value chain and reduce their sense of isolation and deepen their level of involvement in the value chain.

The industry has to work hard towards building an image for its seafarers as highly professional, intellectually challenging, and emotionally satisfying and to encourage the pride in the seafarer's job, and make the youngsters dream of becoming a seafarer. Today development of Maritime Education and Training (MET) system is a dynamic process under the pressure of rapidly improving maritime technology. Technological developments will almost certainly continue to create the potential for innovation in international shipping, but creating the conditions required to capitalize on that potential is likely to demand new ways of thinking, new ways of working, and a new framework for understanding reality.

Seafarers intending to come ashore to work find that they need additional skills to adapt to the shore working environment and competency for the job requirement. The training received by seafarers in most country is still limited to the need of the marine environment and in most country training is on the seafarer own initiatives and expensive. Thus resulted they only acquired certain type of trainings that only related to the job concerned but no other soft skill such as business savvy, accounting and financial, communication and interpersonal skill and many skill that were not incorporated during their earlier involvement in the maritime sector.

Most of those who came ashore have to learn on the job and risk losing out or some may just give-up and return to sea. This effect would later on discourage those who are intent to choose the sea as their career to shy away as there is not career alternative later in live. The maritime sector is facing a lack of well trained maritime business managers. There exists significant new and rising demand for education and qualifications which enhance the innovation capacity within the sector so as to benefit from the predicted growth rates in the maritime transport sector. In future, maritime business managers need to be better prepared by possessing multidisciplinary knowledge and skills set to cope with growing maritime traffic, port development, and rising environmental challenges, all within an intermodal environment. More generally, a perspective on education would suggest the importance of looking beyond excellence in specific competencies, to include openness to other cultures, a capacity for self-expression and reasoned discussion, tolerance for other people's views etc. MET Programmes must provide some basic information for cadet officers to identify the differences between individuals and countries in competencies believed to underlie both personal and social success; assess the impact of these competencies at individual and collective levels; measure the performance of education and training systems in generating required competencies; and help to clarify the measures that could contribute to enhancing competencies. To meet these goals, programmes must measure the interest, attitude and ability of individuals to

appropriately use socio-cultural tools, including digital technology and communications tools; to access, manage, integrate and evaluate information and construct new knowledge; and to communicate with others. This should also give way to assess competencies in the fields of literacy, reading, numeracy and problem-solving. During the programme development phase at the new established Piri Reis Maritime University the main discussion point was whether to cover these learning outcomes in national language and support the outcomes with basic English and maritime English units or completely in English to integrate the international spirit of maritime environment into foundation and vocational teaching by employing international staff and lecturers.

Piri Reis Maritime University, giving special emphasize to internationalization, became involved in graduate and post graduate programmes fully in English in order to prepare young people for life as well as work under the rapid developing globalisation, focusing on young well educated and trained graduates with a clear sense of direction, judgement and wisdom to meet the requirements of the today's maritime industry which is completely in international character. It is assessed that having all units in the curriculum in English will provide a holistic approach to enhance language skills together with socio-cultural abilities in order to meet demanding and challenging requirements of the maritime industry. Although all units are taught in English there are still Maritime English units in every semester. These are in fact to be considered as Maritime.

Turkish units those are designed to support vocational units in respective semesters. These are also taught by professional captains as to provide free discussion ground in national language to support vocational subjects as cadets are subject to National Seafarers Exams for CoC in Turkish. A proposal was made to national maritime administration for the conduct of seafarers exams in English for English programme graduates. Intention is to carry out sample exams both in English and in Turkish to determine the success levels and bring the results to the attention of IMEC members in the next conference.

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