Maritime English holds a great stake in the both safety and security of merchant vessels

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Abstract:

Shipping is the industry that can be characterized as the largest international and the most globalised one, as about 90% of the world trade transported by sea ٠ What we see today is a series of structural changes transformed the world's shipping industry to its today's globalised character ٠ The number of the international maritime cooperation's appears to be increased as frames of multinational shipping companies formulating multicultural constellations in the goal of the shipping industry ٠ Therefore, the era of mixed crews bodies of the maritime manpower various nationalities are existed ٠Furthermore, the world's largest fleets are attacked by crews multiculturalism, in fact mixed nationality crews are not a new phenomenon but it became a 'hot' issue nowadays ٠ The human factor is often point out in the explanation of many of today's accidents at sea, so Communication difficulties often occur in these areas due in part to cultural languages differences but also due to language 'barriers' ٠ IMO recent analyses illustrate the problem if there are any lessons to be learned for the future.
The paper reveals the importance of maritime English, the language of the sea, as the fundamental of all communications between ship and shore members, and the needs of sufficient English language skills (on board ships, shipping companies members, and maritime instructors) that plays an important role in the development of safety and security on board merchant ships ٠

Key words: maritime English –communications-Human element - different languages

1-Introduction:

The international shipping industry plays a vital role in the facilitation of world trade as the most cost and energy effective mode of transport. Shipping is probably also the most international of all industries and the most important part of the global economy. In fact shipping industry has been called one of the four cornerstones of globalization. With the recent world economic failure, and a strong reduction in world trade, shipping companies needed to drastically reduce operating costs to survive. The solution available was to flag offshore and reduce crew costs by hiring officers and crew from anywhere in the world and increasingly corporate functions were outsourced and supply chains extended across borders and continents. Moreover, the international shipping companies focus on establishing business in new areas and form joint ventures with local companies therefore the era of mix seafarers of different culture nationalities and origin start to appears and in today's maritime world running a vessels with only a single nationality are nearly impossible so there are seriously impacts upon ships safety and security because of the lake or loss of communication and among seafarers.

The Safety and Security of merchant ships will require newly strategy drawing for the cultural synthesis of mixed manpower (crews). Indeed, a part from the ethical and moral dimensions, mistreatment of crews affects the safe operation of vessels, because every vessel is as good as the people that navigate her.

2-The Human element influences ship's Safety:

The human element is "a critical feature of all aspects of ship or system design and operation"، The human element has long been recognized as important to marine safety، In the maritime context, the term human element embraces anything that influences the interaction between a human and any person, system or machine aboard ship. The human element has been with us since time immemorial، (Squire, 2001)

IMO has defined Human Element as a complex multi-dimensional issue that affects maritime safety and marine environment pollution. IMO involves the entire spectrum of human activities performed by the ship's crew, shore-based management, regulatory

bodies, recognized organizations, shipyards, legislators, and other relevant parties, all of whom need to co-operate to address human element issues effectively. (IMO A.850-20)
It is a commonly stated assumption that the human element is a underlying cause of up to 80% of all accidents, and the human errors have been identified as one of the main causes leading to maritime serious accidents therefore safety on board ships are governed by well performance of the human element، That's why, The International Maritime Organization (IMO) has considered the human element as an important function in its efforts to provide a 'safer and cleaner regulatory regime' for international shipping، (Rashed, 2009)

3-Development of Multinational Crews:

Multinational crewing is normal, two decades ago crew members were replaced by any available nationality، Moreover, the last two decades of the 20th century, the global labour market for seafarers has emerged and has become established through a worldwide network of agencies and organizations dedicated to crew management. This was due to:

- Open register ships which accounted for more than half of the world's internationally trading fleet.
- European countries relaxed their crew nationality requirements. This encouraged seafarers to move freely between flags, a freedom created by the ship owners and managers,
- Ships whose flags and entire crew share the same nationality are mainly owned in the world's developing countries are the suppliers of seafarers for the ships of the open register.
- The cuts in labour costs made by ship owners and ship managers،
- Union also played an important part in creating the global market.
- Around the mid-1980s, these nations ended their dependency on the established and regulated labour markets they were tied to and in which their businesses were located, and were free to choose from every world region that was on the market offering low cost seafaring labour.

- And so, every world region that was able to offer cheap seafaring labour immediately became a potential source of supply. Consequently nationality became irrelevant. This laid the defining feature of the global labour market for seafarers.

As a result of differing origin manpower, where ship's crews are drawn from various countries, there may be barriers of differing cultures, and languages. The communication problems of crew members arises that may cause serious impact upon ship's safety and security.

4-The importance of communication on ship's safety:

Communication is the transmission of information through a common system of symbols, signs, behaviors, speech, writing, or signals, by physical

Mechanical or electronic means.

Communication is an important tool for social interaction and, more importantly, for safety at work. Even where language is not different, ship board work can suffer and become dangerous as there is yet no leveling of the ship board management and decision-making process with regard to rank and title. Seafarers may find it difficult to discuss personal concerns or share hopes and ideas with colleagues who do not share their background and this may make them vulnerable and cause what is called "social isolation".

The seafarers withdraw to their cabins, reduce social interactions and may live out months of monotony broken only by the demands of heavy workload. At times this isolation can erupt in the form of personal grievances or aggressive behavior that has an immediate adverse effect on ship operations and on the rest of the crew. In addition to poor reaction to safety and security skills activities and different shipboard operations.

Communication difficulties can pose a major challenge to mixed nationality crews, the negative side is that it is much harder to communicate effectively. This miscommunication can cause work-related problems, that can cause irritation or at times lead to dangerous misinterpretations of warnings or orders. This problem can be just as important for senior officers as for ratings, and as important from the master to the

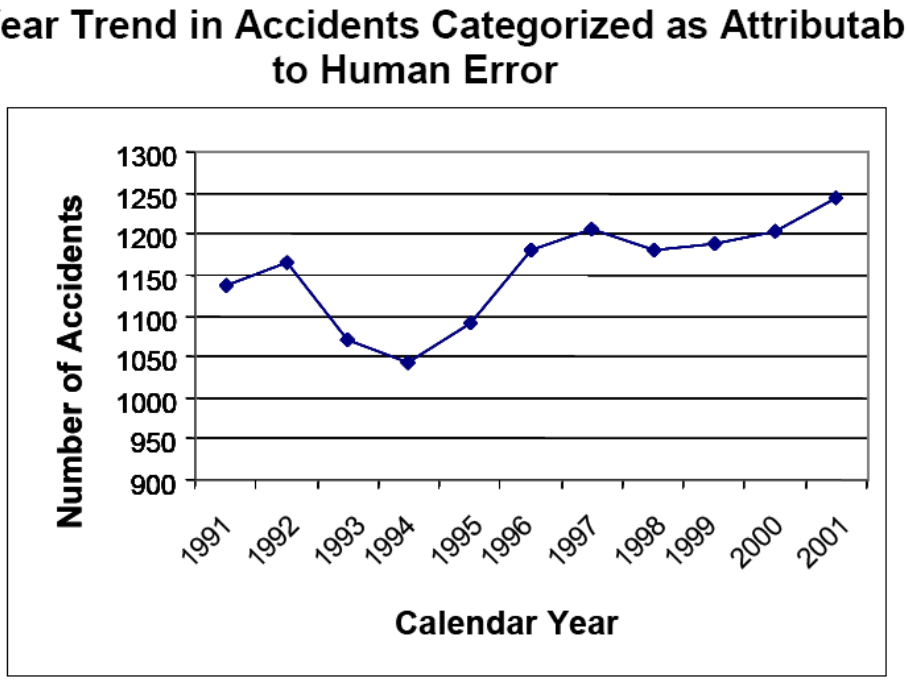

Fig (1) source: Ziarati, 2008

Recent report by the UK,s Maritime Coastguard Agency (MCA) to IMO MSC 2006 identifies English language competency of seafarers as one of the major problems which has contributed to many accidents and incidents at sea. Although, the number of accidents is decreasing, accidents due to human errors have increased and in fact the trend indicates an increase in the number of accidents due to human error. Some of these problems are due to language communication problems among the crew, often leading to actions responsible for incidents and accidents.

5-The importance of English language on ship's safety:

It is widely accepted that English is the common language of the sea. Therefore, seafarer's ability to communicate to an acceptable standard of English is essential. Furthermore, the staggeringly high number of accidents being caused or in some way

related to poor levels of maritime English language on board merchant vessels or in ports has been of increasing concern to all categories of seafarers, ship owners/operators and MET institutions. The problem acquired greater significance upon the publication of official International Maritime Organization (IMO) statistics, stating clearly that 80% of accidents at sea are caused by human error and nearly half of which are attributed to communications failures.

6- Poor language impacts on dangerous situations:

Language can be a barrier between people and thus language training is important. Improvement of language skills and emergency procedures are important so that seafarers can communicate effectively and thus avoid frustration and dangerous.

6-1 Operating manuals Language problem:

Improved methodology in ship design does not completely address the problem, as the seafarer then has to decipher the operating manuals that are supplied with the equipment. The Confidential Hazardous Incident Reporting Program (CHIRP) has recently concluded a study, with the help of the UK's Marine Accident Investigation Board, which shows that a substantial number of accidents are caused by operating manuals that are hard to understand.

Language can often be a major problem. The manual may not be written in the language of the crew on board, and is often merely a generic document. Given that adequate facilities are available for translation of manuals into just about any language, this is unacceptable.

6-2 Communicate between ship and shore:

- During search and rescue activities.
- During periods of pilotage, English is frequently used as a common language and both Pilot and crew must be able to communicate effectively to ensure safety.
- During communication with V T S .

6-2-1 Case study:

Problems related to miscommunication between a pilot and ship captain.

This is an incident took which place when a cargo ship was docking in Lerwick, Shetland Islands, UK, on 11 Nov 2002 and unfortunately led to death of a sailor.

The accident happened when the pilot on board the cargo ship was directing the assistance of two tugs in severe weather condition. Due to the breakdown of the communication the captain of the cargo either did not know, or did not understand the pilot's instruction to make fast a tug forward. To this end, the captain did not consider delaying entry in the harbour, nor did the pilot or the harbour master consider suspending pilotage services or port entry. There are two communication related issues raised after the incident concerning human factor. The first one is the importance for port authorities to establish proper towage guidelines that include procedures for communicating between Port Control, the Pilot, the tugs and the ship. The second issue raised is that, the Port Control had used a conversational English to communicate with Master whose mother tongue is not English. It is reported that such communication could lead to ambiguity and is considered imprudent if not unsafe. It is important to note that the communication, e.g. between Port Control and a ship, should be clear and precisely to avoid any possibility of misunderstanding. (Ziarati, 2008)

6-3 Communicate between ship and other ship

6-3-1 Case study:

Problems related to different languages with respect to external communication, VHF communication with other vessels.

The grounding of "Royal Majesty" on Rose and Crown Shoal near Nantucket, Massachusetts on 10th June 1995 is a very complicated case with a number of human factors issues. The issue to be used in this analysis is the communication between M/V Royal Majesty and a group of Portuguese fishing boats and the ship to ship communication between the fishing boats on VHF channel 16 a short time before the grounding. The M/V Royal Majesty was off route due to a malfunction of navigation equipment on the bridge, but the crews were unaware of this malfunction due to false indications from the navigation equipment. At a certain point, the crews on board a group of Portuguese fishing boats realized that M/V Royal Majesty was heading towards danger and tried to call it on channel 16. Because they called a vessel on a certain position, and

the crew on board M/V Royal Majesty was convinced that they were in another position, the crew on M/V Royal Majesty did not respond to the call - the call was made in English. The call in English did not indicate any danger, but the ship to ship communication within the group of Portuguese fishing vessels did indeed indicate danger, but this communication was in Portuguese and was not understood by the crew on board M/V Royal Majesty. There is a possibility that the crew would have paid attention to it, had the communication been in English and there is a further possibility that the crew might had been alerted that their vessel was off course. (Koester, 2005)

6-4 Communicate with passengers and crew:

Those working onboard passenger vessels must have a strong command of a common language in order to communicate with passengers as well as crew each other.

6-4-1Case study:

Problems related to different languages among crew and passengers on passenger vessels. The ferry Skagerak foundered in heavy weather in 1966 on route between Norway and Denmark. The passengers and the crew were all saved due to a remarkable effort from the crew as well as from the vessels and helicopters engaged in the search and rescue operation. The mustering of the passengers was not done using loudspeakers. A member of the crew knocked on the door to every cabin and asked the passengers in Norwegian or Danish to don their lifejackets and go to the mustering stations as quickly as possible. A couple of French speaking passengers did not understand the instructions given and assumed that the crewmember talked about the arrival. They therefore dressed carefully and prepared for the arrival and went to the passenger area where they found the other passengers dressed in pajamas and lifejackets. Although the situation now can be considered amusing - the passengers were in fact saved -it is evident that the problems with the communication between the crew and the passengers could have had fatal consequences. (Koester, 2005)

6-4-2 Case study:

Factors related to the interface between humans in relation to communication between crew members.

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. (Koester, 2005)

6-4-3 Case study:

The interface between humans in relation to language.

The ferry Scandinavian Star burned out completely on a voyage from Norway to Denmark in 1990. A lot of the passengers and crewmembers died in the fire, and the accident was considered to be one of the worst passenger ferry disasters ever in European waters. Witness testimonies express problems related to crew-passenger communication and crew-crew communication due to different languages. The captain even complained about the poor English language skills of the crew in a telefax to the ship owner before

the accident occurred. Moreover, the majority of the crew was were new on board. (Robinson, 2006)

7- IMO efforts in developing the maritime English:

The Standard Marine Navigational Vocabulary (SMNV) was adopted by IMO in 1977. It was however not the only attempt at identifying maritime and nautical words and phrases to be used by mariners. The SMNV was not intended to be mandatory but rather that through constant repetition in ships and in training institutes the phrases and terms were expected to become those normally accepted and used amongst seafarers in preference to words of similar meaning. In this way it was anticipated that an acceptable form of maritime English would develop for the interchange of communications between seafarers and between ship and shore.

In the early 1990's IMO realized that the changing conditions in modern seafaring necessitated a more comprehensive standardized safety language covering all major safety-related verbal communications. After a long gestation period the Standard Marine Communication Phrases (SMCP) were adopted by the Assembly in November 2001 as resolution A.918(22).

7-1 The IMO English language requirements:

The recent amendments to SOLAS convention underline the need for a common working language in the interests of safety at sea. Unless the personnel involved speak another common language, English must be used as a working language for bridge- to bridge and bridge to shore safety communications and communications on board between the pilot and bridge watchkeeping personnel. (SOLAS, Ch V)

Regulation 1/14 in STCW concerning explicit company responsibilities requires that the ship's entire crew can effectively co-ordinate their activities in an emergency, that implies the ability to communicate in a common language. It is possible that this aspect will have to be demonstrated to port state control officers, for example, through life boat drills, STCW that came into full effect in 2002, also includes several requirements of personnel on board ship. (STCW Code Table A-III/1)

7-2 ISM Code and the maritime English:

The ISM Code is widely considered as one of the most important measures adopted by IMO during the last few years because it is designed to ensure that ship-owners / shipping companies make safety a first priority.

The international safety management (ISM) code emphasises the importance of communication in the development and maintenance of effective management systems. Under ISM, companies are required to ensure that the ship's personnel receive relevant information on safety management system in working language or languages. In addition to communicate effectively in the execution of their duties related to the safety management system. In practice, the language used is often likely to be English. (ISM 6.6 and 6.7)

IMO clearly requires adequate communication skills in the English language for many Maritime Universities.

8-The Maritime instructors are the source of English knowledge:

The Maritime Education and Training (MET) system is characterized by four elements: Students, academic staff, programmes and facilities. Obviously, a better quality of MET graduate students is a consequence of a quality enhancement of the academic staff.

"Each higher MET institutions and Maritime instructor should strive for the optimum or most promising qualification method while bearing in mind that MET institutions and Maritime English teaching staff are alike, because they are subject to the obligations of STCW 78/95". (Gamil, 2008)

Teaching standards vary internationally in teaching professional subjects at MET institutions around the world. All MET instructors, whatever the specialist subjects they teach, should have a good command of English and be familiar with Maritime English terminology; they should use the appropriate words and phrases. (Gamil, 2008).

In fact, the maritime instructor is very important source of the maritime English terminology that seafarers need, and seafarers as Human element the basic of safety on board ships.

The Education is a process whereby information is exchanged between the student and academic staff. The MET system provides specialists who can work in shipping operations, the shipbuilding industry and other maritime industry activities. The development of the industry as a whole depends on the MET system and precisely, on the MET instructor's development, and the instructor's development require good command of Maritime English that is essential in safety and security on board merchant ships. (Gamil, 2008)

Conclusion:

English language is essential to insure the concepts of safety and security on board merchant ships, as it is the language of the ship besides the working language. Mixed nationalities crews need English as a common language to communicate, because effective communications are an essential ingredient to safe and efficient ship operations. The international community has chosen the English language as the medium for that communication. The review of accidents (case studies) resulted of miscommunication clearly illustrated the importance of English language on board ships and on shore in attaining the safety aspect, as communication failure cited as one of the major or contributory causes of maritime accidents. Therefore English holds a great stake in the both safety and security of merchant ships.

Recommendations:

- developing and delivery English language training for merchant navy cadets and officers.
- Promoting social activities on board via Masters and senior officers
- Safety drills, and other drilling activities on board ships should be done using the Standard Marine Communication Phrases (SMCP) and captains evaluate their crew through, then report to shipping company to reject substandard members.
- Shipping companies should insure that their multinational crews(on board their ships) interact and communicate in a common English language to maintain

”social harmony‘ even in an off duty context to ensure effective day to day operations. In addition to the improving of multinational crews communication ability through training, education and development of the procedures for effective communication.

- Maritime instructors are important sources of Maritime English terminology, that supports seafarers, in that they should have a good command of maritime English.
- The relevant administrations, associations, institutions and related maritime bodies still need to take appropriate measures in an effort to ensure Maritime English instruction competence is achieved to the full.

References:

- Squire, D. (2001), He Alert! http://www.he-alert.org/faq.aspx.

- IMO Resolution, A.850(20),

- Rashed.S, *The Integrated efforts required to maintain the Safety and security processes for Passenger ships, IAST conference, Alexandria,* 2009

- European Union-DG VII. *MARCOM Project: The Impact of Multicultural and Multilingual Crews on Maritime Communication Final Report - Volume 1.* Transport RTD Program, Brussels, Belgium,(1999)

- Koester, T. (2005). *(The Human Factor)*. Vedligehold, drift & økonomi (Maintenance, Operation & Economy). No. 9. December 2005. Available : http://www.he-alert.org

- Ziarati, R. and Ziarati, M., „Review of Accidents with Special References to Vessels with Automated Systems – A Forward, AES07, IMarEST, 2007 Available : http://www.he-alert.org

- Ziarati R., Ziarati, M. and et al, „Improving Safety at Sea and Ports by Developing Standards for Maritime English, IMLA 2008, September 2008, Finland, 2009

- Robinson, A., „The Scandinavian Star Incident‟; IFE Journal ‚January 1999.

- STCW Code (Table A III /1) \ as amended in 1995

- ISM Code,6.6 & 6.7

- TAREK GAMIL, UPGRADING MET INSTRUCTORS (The skills and knowledge enhancement demanded by MET stakeholders),MSc,WMO,2008.