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THE IMPACT OF MULTICULTURAL AND MULTILINGUAL CREWS ON MARITIME COMMUNICATION – what is (Y)our Position?

A considerable amount of debate about the safety of ships at sea has been focused on substandard ships and the failure to meet internationally agreed standards. However, any discussion of the safety of vessels at sea needs to address a much broader spectrum of issues. Of particular importance is the issue of substandard officers and ratings, because most accidents involve some degree of human error.

Hed B (June 4, 1993) Lloyd's List

Built in Spain; owned by a Norwegian; registered in Cyprus; managed from Glasgow; chartered by the French; crewed by Russians; flying a Liberian flag; carrying an American cargo; pouring oil onto the Welsh coast.

Headline, (February 22, 1996) *The Independent*

The incidence of multilingual and multinational crews has become increasingly common onboard vessels owned and operated by European Union members. Clear and accurate on-board communication is essential to promote vessel safety, environmental protection, and stress-free social interaction. However, it is widely agreed that communication currently represents a significant problem within multilingual and multiethnic crews.

The two-year MARCOM project that was concluded earlier this year, has researched into the extent of this problem and has presented a number of reports which, it is hoped, will provide the basis for training in the management of cross-cultural crews, and shipboard language development in line with the requirements of the STCW Convention and the ISM Code. It has also attempted to bring out other language-related essentials which shipping organisations should adopt in their training and safety management systems.

In particular the MARCOM Project is intended to act as a catalyst at maritime education and training institutions, to set off a radical overhaul of this key aspect of maritime safety so that a unified approach to the establishment of standards, and the ways to achieve such, will be forthcoming.

This paper charts the progress of MARCOM and presents and comments on selective aspects of the research. Further, it poses the question – what is (y)our position?

1. INTRODUCTION

In the not so distant past, and certainly for most of this century, it was common for ships to be financed, built, managed, commercially traded, manned and registered by a single country. Communication between any party in the operations chain was not a problem, at least not beyond the pretence of dialectal misunderstandings! Today, however, the shipping industry is truly global in nature and rarely does a ship have an owner, officers and ratings from the same country with the same native language.

The Donaldson Report highlighted the problems involved in operating with such an international workforce:

8.4.1...it is certainly true that standards of training vary between countries and that there are fundamental problems of communications within mixed crews, not just because of language differences but also because of cultural difficulties.

Donaldson (1994)

It was with this concern in mind that the European Commission under the Transport RTD Programme of the 4th Framework Programme, funded, through the Commission's Research Programme into Waterborne Transport, the MARCOM Project: *The Impact of Multicultural and Multilingual Crews on Maritime Communication*.

2. AIMS

The Project has recognised that it is essential to ensure that all those embarking on a seafaring career receive appropriate instruction in linguistic communication during their training to be able to manage and form part of any multicultural crewing environment. MARCOM's main objective has thus been to recommend improvements in communication skills on the bridge, between ships and from ship to shore in order to minimise the risks to the safe handling of the ship and ultimately to the environment. Improved onboard communication would further reduce stress levels amongst seafarers in what is recognised today to be an isolated and lonely occupation.

The steps towards achieving the aims have been to:

- assess the value of a single common working language which could be used in all circumstances
- make a linguistic analysis of ship to ship and ship to shore communications
- produce guidelines on the use of language in emergencies and accident prevention
- analyse the incidence and causes of cross-cultural tensions onboard and their current management
- evaluate present standards of teaching communication skills in maritime colleges and produce a pilot syllabus that responds to new regulations and current thinking

The Project started on January 1, 1997 and lasted for two years after which a final report was produced and submitted to the Commission in March this year for approval. It appears that the findings will be published and made generally available by the European Commission later in 1999.

3. PARTNERS

MARCOM has involved four partners from different European countries. Co-ordinating the Project has been the Seafarers International Research Centre (SIRC) for Safety and Occupational Health based at the University of Wales, Cardiff. The three other partners are World Maritime University (WMU), Sweden, the Institut für Sicherheitstechnik/ Verkehrssicherheit e.V. (ISV), Germany, and Escuela Superior de la Marina Civil de Bilbao (ESMB), Spain. The project has also involved a contribution from language communication experts of the Centre for Language and Communication Research (CLCR) at the University of Wales, Cardiff.

4. COMPONENTS

During the two years of research 21 reports (referred to as deliverables) have been produced by the partners according to a prearranged timetable: 4 at 6 months, 4 at 12 months, 8 at 18 months and 5 at 24 months.

The reports address such matters as:

- Cross cultural relationships
- Operational communications
- Social communications
- Ship-to-ship communications
- Language analysis
- Common guidelines and a syllabus

The final integrated report attempts to synthesise all of these aspects so that its recommendations may form the basis of an action plan, in line with the requirements of the STCW Convention and the ISM Code, to be implemented by the European Union.

5. GIST

The 21 reports, collectively consisting of over 1400 pages, were submitted to the European Commission during the research period. Clearly it would be impossible to summarise or synthesise this massive amount of accumulated literature in a restricted paper like the present one. Indeed, the Final Report alone consists of two volumes of 273 pages! Nonetheless, what follows includes a number of reported salient points noted by the author that may, in the meantime, provide useful discussion items within the WOME forum.

Essentially the Project has dealt with two aspects of maritime communication:

- the problems and practices of maritime English usage
- the training procedures used and those recommended

Regarding the former aspect the aim is:

To provide an understanding of the significance of communication in the multicultural and linguistically diverse ships of today and to provide English language teachers (who are generally not mariners) of "maritime English" with detailed information on the nature of on board use and misuse of language and the types of accidents which can result.

(Final MARCOM Report, 1999)

This provides the realistic basis for the latter aspect that covers the education and training procedures being used around the world today and those recommended.

The measuring of cultural diversity and nationalities on board ships is a difficult area of data acquisition and analysis. In an attempt to do this primarily sampling and case study methods were used. From this data, conclusions on typical crew composition were established, a disaggregation into nationality and rank made, and a detailed analysis on 770 vessels entering one German port conducted as a case study.

Globally the results of this investigation confirm the very substantial numbers of mixed national crew compositions on all categories of ships. Only the USA and Russia reveal a significant correlation between flag and nationality of crew; the greatest diversity of nationalities occurring in the cruise ship sector where it is not unusual for the mix to exceed thirty in a crew of 500.

In short, only about 20% of all ships have nationally homogeneous crews, although even these are ethnically and culturally diverse. The other 80% of ships operating around the world simply have more than one nationality on board. Further, the relationship between rank and nationality shows that senior officers are primarily from North-West Europe and ratings from Asia.

Worth noting from the German port case study is that 345 of the 727 vessels for which an *official* ship language was noted, declared English as the official ship language. Of the 770 vessels included in the analysis, the Captains came from 49 different countries. The first language of communication between the Captain and the Pilot was English in 620 cases. On 44 vessels the Pilot communicated using sign language. Regarding the number of languages used by the bridge team, this was specified on 697 vessels, revealing that 370 (53%) used more than one language.

Regarding criteria for selecting and combining crews a questionnaire sent to organisations engaged in recruiting seafarers revealed that the top four criteria for selecting officers were:

- | | | | |
|---------------------|--------------|----------------------|---------|
| 1. Ability/training | 2. Tradition | 3. Language facility | 4. Cost |
|---------------------|--------------|----------------------|---------|

whereas for ratings the top four criteria were:

- | | | | |
|---------|---------------------|----------------------|--------------|
| 1. Cost | 2. Ability/training | 3. Language facility | 4. Tradition |
|---------|---------------------|----------------------|--------------|

However, it is made clear that the reason for the evolution of multinational crewing has been for one reason only, to reduce costs!

Communication problems are frequently culture-based and therefore not easily resolvable. One report reviews the literature addressing cultural diversity

and linguistics but concludes that no studies to date are available, which relate to the linguistic and cultural domain inhabited uniquely by seafarers. In a later report this domain is surveyed through in-depth interviews with 52 mainly middle and junior-ranking officers. The most striking impression is the overriding ethnocentrism of the interviewees and that exposure to a programme of training that provides a basic understanding of the issues at stake in intercultural communication, together with a more cohesive policy on language teaching programmes for seafarers, would benefit the whole industry.

Referring to a ITF/MORI survey which included 6500 seafarers, one report indicates that while single language crews have difficulty in understanding each other on about 5% of occasions, this figure rises dramatically to 40% when two nationalities are involved, but does not alter substantially with the addition of other language groups.

This aspect is the theme of two other reports that respectively assess how accidents result due to misunderstandings and how stress levels arise among crew due to difficulties in understanding. The approach taken was to evaluate qualitatively, through the examination and appraisal of accident reports, official enquiry reports, anecdotal evidence and other documents, the impact that language differences in multilingual crews can have on the day-to-day running of a vessel, in specific critical situations and in communication with other vessels and the shore.

In this respect, where a lack of communication is identified as playing a role in a maritime accident it is often difficult to ascertain its importance as a factor. Further, it may not be reported at all. Nonetheless, an analysis of 273 accidents conducted by the Marine Casualty Branch of the Canadian Coast Guard found that 200 involved human factors and of those, 20 involved lapses in communication. One of the principal ways in which the problems of communication lapse will be overcome is through the strict implementation of the STCW 95 regulations and observance of the ISM Code. Here there is scope for standards to be set, communication in a common working language to be required, and Port State Control measures to be taken.

However, the problem being faced does not solely have its root in enforcement deficiencies. The results of research presented concerning current standards in maritime education and training reveal that on a world-wide basis there is little co-ordination in terms of (English) language use, syllabus design, course content, assessment tools, teaching materials and teaching methods. Generally each country, and often each training institution, has, over the years developed its own system.

Typical observations reported are:

- current standards for maritime communication, as currently defined by IMO, are considered to be too vague
- individual maritime English teachers frequently establish their own content and standards for courses since national or maritime policy is lacking
- maritime English teachers often create their own material and tests
- a wide variety exists in maritime English and general English teaching content and methods
- a wide variety exists in the number of hours allocated for English instruction

- insufficient screening of candidates regarding English language skills takes place prior to enrolment
- the *wrong* language skills/components are assessed

In a follow-up report 31 countries (16 from Europe, 8 from Asia, 3 from Africa, 2 from South America, 1 from the Caribbean and 1 from the Pacific) partook in an examination of current English language teaching in maritime institutions.

The results reveal an average class size of 23 (range 6 to 55), a mean student age falling between 18 and 29, and a reliance on part-time teachers and teachers without maritime experience (82%). The largest percentage of class content is reading skills followed by speaking skills. However, there is a dramatic difference between Europe, where speaking is taught in 84% of the classes and writing in 71%, and Asia, where speaking is taught in 35% of the classes and writing in 30%. A maritime English text is used in 79% of the classes, although observation revealed that this was frequently done with photocopies of pages. Around half of the institutions have language laboratories available and 43% have computers for classroom use. However, the most used teaching methods are based on the traditional: teacher-centred, translation, blackboard/whiteboard.

This last matter is taken up in another report that considers alternative methods of delivery for language teaching. The review concludes that the recent and rapid increases in the cost effectiveness of PC-based multimedia training materials now make this technology practical for maritime English instruction. Use of the existing PC-based technology, together with resources of the Internet, is seen as the most effective way to standardise maritime English training and improve the skill levels and effectiveness of the practising teacher. Continuing rapid improvements in voice technology, multimedia applications, and cost effectiveness will make this even more compelling over the coming years.

At this point it is interesting to note that maritime *English* is taken for granted. In a further report, existing codes of practice are evaluated and a lingua franca is argued for, namely English, which is not just recognised but mandatory. However, a warning is flagged against the setting up of standard vocabularies, as these are, as if by default, prejudiced towards the standard varieties of English as taught in Britain and North America and do not take into consideration the many other varieties of English which, the evidence reveals, are multiplying and diversifying rather than becoming fewer and more standardised.

Two other reports also make a case for English as a working language while presenting the scope of the previously undefined concept of *Maritime English* and the levels of competence required among navigation officers, ratings and in marine engineering communication. A matrix of maritime communications is presented and levels of language skills described in tabulation form.

The current approved standards of Maritime English are also considered noting the evolution and linguistic nature of maritime communications and recording and evaluating the language standards specified in documents issued by Maritime Organisations. In particular IMO's Standard Marine Navigational Vocabulary from 1977 and its successor, the Standard Marine Communication Phrases from 1997, are compared and a case presented for the introduction of the latter into Maritime English courses at MET establishments.

A further report anticipates the introduction of transponders on board vessels by describing alternative ways of communication on a non-verbal basis in specific ship to ship and ship to shore situations, which may preclude much of the previous discussion. While it is clear that there is great potential for clear and reliable communication to take place, particularly in the area of standardised communications, specifically in situations such as collision avoidance, in other situations such as distress and conflict the transponder will allow only marginal improvements.

Finally, one report explains what a pilot syllabus for the teaching of maritime English should consist of but is at pains to point out that a single syllabus is unlikely to be sufficient to cover the many classes of persons who use maritime English.

6. CONCLUDING COMMENTS

There are approximately 1.2 million seafarers in the world today, the majority coming from South East Asia and the states of the former USSR. During less than half of an average working life around 80% of the world's merchant ships have become multilingual and multiethnic in crew composition. In the promotion of vessel safety, environmental protection and stress free social interaction, a vital element is the existence of a single common *working* language which can be used in all circumstances. IMO has been reluctant in the past to name English as that language, even though it has been adopted in practice; a state somewhat rectified by both the new STCW Convention and the ISM Code.

The reality is, however, that most European seafarers are recruited from non-English speaking countries, both within and without the Union. The evidence collected by the MARCOM partners indicates clearly that serious problems exist in the ability of multicultural and multilingual crews, along with key shore personnel, to communicate at the level required to enhance and ensure the good reputation of the shipping industry.

Appropriate instruction in general and career-specific English, which i.a., addresses the skills required to manage a multicultural crewing/staffing environment and guarantees that quality is maintained, is a prerequisite of an industry which wishes to demonstrate its serious intent at the beginning of a new millennium. Failing to meet such requirements will not only jeopardise safety at sea but also inevitably lead to a chain of associated transgressions; meeting these requirements, however, will give European Union shipping a comparative advantage that will place it at the forefront of the quality market being fostered by IMO.

The MARCOM Project, in this respect, is intended to act as a catalyst, particularly within maritime education and training establishments, to set off a radical overhaul of this sometimes maligned, often overlooked, aspect of maritime safety, so that a unified approach to the establishment of standards, and the ways to achieve and maintain such, will be forthcoming.

MARCOM now provides the long-awaited research to give weight to what many maritime English teachers have known for years. It points out the different ways in which English is used as a maritime language, who uses it and who should use it. It provides guidelines for the creation of maritime English syllabi. It offers us the building blocks that can be utilised to produce common goals in language teaching for those who wish to follow a career at sea.

MARCOM throws down the gauntlet. How do we then best take up this challenge? *What is (y)our position?*

To be considered...

A page of items, emanating from MARCOM discussions, for WOME10 to consider:

- The acquisition of the English language to be internationally (EU) recognised as a requirement for employment on board ships.
- Minimum standards/goals regarding the above to be internationally established and recognised according to rank/duty requirements. Could be clustered by rank and organised around goals (using English to communicate in social settings, using English to communicate professionally, using English in culturally appropriate ways, etc) supported by descriptors.
- Clear policy guidelines for English medium teaching to be established within (EU) MET.
- The need for teacher training courses to be designed and delivered for (EU) Maritime English teachers.
- The development and distribution of pedagogically sound materials for classroom and independent learning purposes – best done via a permanently manned website?
- An international system of assessment encompassing all (EU) maritime institutions (and all seafarers employed to work on (EU) ships) to be established. To be overseen by a Board. Goal to ensure quality.
- Port State Control inspectors to be provided with the means of assessing the EL ability of crewmembers - via random (hand-held) computer test items.
- Immersion programmes for maritime institutions as an alternative/complement to the existing hours-per-week timetabling. English village-type programmes could be established as pre-sessional or vacation-based (remedial) programmes. Inter-academy activities should be encouraged.
- Self-access, self-study facilities to be provided at MET institutions (during training) and on board ships.
- English language broadcasts/videos (with English subtitles) for entertainment purposes to be available at MET institutions and on board ship.
- English mentor programmes to become available to provide learners with personal advisors. Could be based on an informal buddy system (as on board ship), or more formally through designated (paid) tutors.
- The establishment of a watchdog body to report to the Transport Division of the EU on the current state of international maritime communication (professional and social) including developments in technological aids (e.g. real-time translation).

Sažetak

UČINAK VIŠENACIONALNIH POSADA NA POMORSKE KOMUNIKACIJE – GDJE JE TU (VAŠE) NAŠE MJESTO?

Višenacionalne posade na brodovima pod zastavom zemalja članica Europske zajednice sve su češće. Želi li se postići bolja sigurnost na brodu, zaštititi okoliš, te izbjeći napete situacije među posadom, nužna je jasna i precizna komunikacija. Međutim, opće je poznato da je komunikacija u višenacionalnim posadama još uvijek velik problem.

Iz dvogodišnjeg MARCOM-projekta, završena početkom 1999. godine, koji se bavio istraživanjem rasprostranjenosti ovog problema, proizašlo je bezbroj radova koji će, nadamo se, dati osnovu za stjecanje obrazovanja za rukovođenje višenacionalnom posadom, kao i za razvitak jezika kojim se služi na brodu, a prema zahtjevima STCW-konvencije i IM-koda. Uz to, pokušalo se istaknuti i ostale bitne jezične karakteristike koje bi brodarske organizacije trebale prihvatiti u provođenju sustava stručnog osposobljavanja i sigurnosnog rukovođenja.

Posebna je namjena MARCOM-projekta da djeluje kao katalizator u ustanovama koje se bave obrazovanjem i stručnim osposobljavanjem pomoraca, da istakne važnost temeljita istraživanja ovoga ključnog aspekta sigurnosti u pomorstvu, na osnovi čega bi slijedio jedinstven način pristupa izradi norma i načina kako te norme postići.

Ovaj rad prikazuje razvoj MARCOM-projekta, te iznosi i tumači selektivne aspekte istraživanja. Nadalje, postavlja pitanje – gdje je tu (vaše) naše mjesto?