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REVIEW OF THE PRINCIPLES FOR ESTABLISHING THE SAFE MANNING LEVELS OF SHIPS

Submitted by the United Kingdom

SUMMARY

Executive summary: MSC 81 requested the STW Sub-Committee to open discussions on a review and possible revision of the Principles of Safe Manning (resolution A.890(21), as amended by A.955(23)). Recent studies by the United Kingdom Marine Accident Investigation Branch (MAIB) and the Swedish Maritime Administration (SMA), have identified from an analysis of recent accident data that fatigue and manning levels are inextricably linked. The studies also voice concern that proper allowance is not being given to the overall operational requirements when determining a vessel's manning level, and especially so for those vessels engaged on intensive short-sea trades. There are additional problems associated with the absence of a dedicated bridge lookout at night on many vessels and a perceived lack of training in vessels operating with Inter Departmental Flexibility Agreements.

Action to be taken: Paragraph 19

Related documents: MSC/Circ.1099–MEPC/Circ.405; MEPC 53/INF.7; resolution A.890(21), as amended by A.955(23); SOLAS chapter V, regulation 14/1; STCW 78/95, regulation VIII/1; STCW Code sections A-VIII/1 and B-VIII/1; MSC/Circ.1014 and STCW Code, section B-1/14

Introduction

1 At its twenty-first session in November 1999 the IMO Assembly adopted resolution A.890(21) on Principles of Safe Manning. Amendments to the resolution were adopted by the twenty-third Assembly as resolution A.955(23). Amendments to the Principles of Safe Manning (resolution A.890(21)) incorporated requirements consequential to the adoption of the new maritime security requirements in SOLAS chapter XI-2 and the ISPS Code. These resolutions support the implementation of SOLAS regulation V/14.1, which requires that contracting governments undertake to maintain or adopt measures to ensure that ships are sufficiently and efficiently manned. These principles are supported by section A-VIII/1 of the STCW Code regarding requirements on the fitness for duty of seafarers. Further guidance is contained in the STCW Code, section B-VIII/1.

2 A recent safety study by the United Kingdom Marine Accident Investigation Branch (MAIB), which reviewed an analysis of accidents and near misses in the last ten years concluded that in sixty five instances of collisions, groundings and near misses, one third of all the groundings involved a fatigued officer alone on the bridge at night. Two thirds of the vessels involved in collisions were not keeping a proper lookout and one third of all the accidents that occurred at night involved a sole watch keeper on the bridge. The full report can be found at: http://www.maib.dft.gov.uk/publications/safety_studies/bridge_watchkeeping_safety_study.cfm.

3 Similarly, a study undertaken by the Swedish Maritime Administration (SMA), which was reported to the Organization in MEPC 53/INF.7, examined thirty two reported collisions and groundings that occurred between 1997 and 2002. In this study it was found that 84% of the accidents occurred between 2300 and 0800 hrs. The document concluded that fatigue-related problems affecting bridge watchkeepers are, with very great probability, occurring more frequently than initially believed.

4 Notwithstanding the information provided in paragraphs 2 and 3 above, it is recognized that not all accidents are solely due to fatigue. For example, human element related issues, relevant to good bridge team management during coastal voyages especially in pilotage waters, has resulted in the grounding of three foreign flagged ships in Irish waters which were investigated by the Irish Marine Casualty Investigation Board.

5 Fatigue is recognized by many as being a major contributory factor in numerous accidents and incidents. It is also considered that fatigue, hours of work and manning levels are inextricably linked. It is also recognized that fatigue is also detrimental to the long-term health and well-being of the seafarer. The problems associated with irregular working patterns and the importance of scheduling reasonably stable working hours are an important consideration when determining safe manning levels.

6 The findings of both the MAIB and SMA safety studies indicate that many accidents are caused by seafarers suffering from fatigue, probably due to a combination of manning levels and irregular work patterns, and that despite the guidance given in resolution A.890(21), as amended, full and proper consideration is not being given to operational factors when determining vessel manning levels.

7 In addition, the nature of seafaring has changed considerably over the last few decades and the introduction of reduced manning levels, reduced port turn around and intensive operational/trading patterns, places an increased burden on the Master, officers and crew.

8 The evidence suggests that full and proper allowance is not being given to the overall operational requirements of vessels when determining manning levels, particularly those vessels engaged in intensive short-sea trades when the vessels routinely operate a two watch system where the Master is required to keep a watch. When the full operational cycle of a vessel and manning levels are considered – the need to maintain a safe navigational watch, undertake frequent pilotage, mooring and un-mooring duties, cargo preparation, loading and discharge operations, port husbandry etc. The requirements for hours of work or rest (paragraph 2 of Annex 2 to resolution A.890(21), as amended, and STCW 95 Code, section A-VIII/1)) must also be fully taken into account. Where the vessel operates under a Pilotage Exemption, if the Master is also the Pilot he will need to be in the wheelhouse, regardless of his watch when under pilotage, again adding to the workload. The seafarer may have to undertake these work patterns for a prolonged period of time, and to an extent, that would not be sanctioned in other sectors of the transport industry.

9 Furthermore, it is evident from the studies undertaken that in spite of advice and guidance to the contrary there is often no dedicated bridge lookout in addition to the watchkeeping officer during the hours of darkness. This is an item that needs to be addressed in the strongest possible terms when reviewing resolution A.890(21).

10 It has been suggested by some that 'safe manning' does not necessarily mean 'more manning' and that more emphasis should be put on the training of seafarers. The United Kingdom believes however, that whatever training a seafarer has received it is of little use if the seafarer is fast asleep on the bridge with possibly no lookout acting as a back-up.

11 Lastly, as a result of an accident recently investigated by the MAIB it was seen that crew serving on a vessel under an 'Inter Departmental Flexibility' Agreement had not been properly trained to carry out their duties, resulting in the tragic death of the cook whilst stowing the gangway. Previously, on a different vessel, a motorman died during mooring operations when becoming entangled in a line being taken away by a tug. As part of this review the responsibilities put on companies by the ISM Code regarding training and the experience of seafarers required to undertake activities as part of their job should be emphasised and indeed the term 'IDF' defined.

12 While the IMO has developed and agreed a number of new initiatives that, *inter alia*, should help address the problems identified above, notably the ISM Code, the output of the joint MSC/MEPC Working Group on the human element and new port State control measures, the impact of these initiatives in reducing fatigue-related accidents has not yet been seen.

Action required

13 The United Kingdom proposes that the Sub-Committee reminds all Administrations that in establishing safe-manning levels for their vessels the guidance provided in resolution A.890(21), as amended, should be used in a global and consistent manner. The United Kingdom further proposes that in this review particular attention should be paid to:

- .1 implementation and enforcement of hours of work or rest requirements detailed in the STCW Convention, as amended;
- .2 vessel operational parameters, both at sea and in port, which affect manning levels;
- .3 operational issues related to ensuring the availability of watchkeepers who are fit for duty, especially in cases where the Master is required to form part of the watchkeeping arrangements, including pilotage duties; and
- .4 the principle laid down in chapter 6 of the ISM Code and its enforcement, ensuring that the company is establishing procedures to ensure the necessary qualifications and safe-manning at all times.

14 In addition to the requirements to be considered listed in resolution A.890(21), as amended, it is suggested that the following items could be added for consideration:

- .1 intensive cargo operations and preparations for immediate sailing;
- .2 long pilotage or possibility of adverse weather conditions requiring the Master to be on the bridge for extended periods;
- .3 length of tours of duty served by seafarers; and
- .4 degree of shore-side support provided to the ship by the company.

15 The United Kingdom specifically requests that the Sub-Committee should amend the current resolutions on the Principles of Safe Manning to the effect that:

- .1 for ships of more than 500gt Administrations are urged to consider the circumstances very carefully before allowing a Safe Manning Document to contain less than three qualified deck officers. A Master and two other deck officers on vessels of more than 500gt should be considered normal in all circumstances;
- .2 the hours of work and rest requirements are an integral and vital part of the decision on a vessel's safe manning and the likelihood of their adherence must be carefully scrutinized before issuing a Safe Manning Document;
- .3 where crew are engaged on contracts or articles containing the term 'Inter Departmental Flexibility' or similar then such crew members must be properly trained in the tasks which they are expected to carry out as already indicated in the ISM Code; and
- .4 the importance of keeping of a bridge lookout at night is emphasized.

16 In terms of the costs to the maritime industry and the associated legislative and administrative burden at the global level, it is relevant to note that resolution A.890(21), as amended, is a non-mandatory IMO instrument. A key element of undertaking this review of resolution A.890(21), as amended, will be to promote globally the effective determination and practical implementation of safe manning on board all ships. As it is therefore hoped that this resolution is used by all Administrations in determining the safe manning levels of ships that fly their flag, it is consequently acknowledged that any amendments to the resolution will incur some administrative costs for Administrations in publishing and promoting, on a national basis, any new globally agreed principles.

17 The impact on the cost to the maritime industry of the outcome of the review of resolution A.890(21), as amended, will have to be considered. However, depending on the outcome of these discussions, any financial implications for the maritime industry will be on a global basis. It is noted that many Administrations, companies and vessels are already following best practices. It may also be significant that, overall, preventative costs incurred may often be minimal when considered against the often very significant costs of accidents in terms of human life, environmental damage and property repairs.

Benefits which would accrue from the proposal

18 Further guidance on the factors that must be considered when determining vessel manning levels together with a more robust international response against inappropriately manned vessels will afford better protection for seafarers against excessive work loads, irregular working hours and the effects of fatigue. This will subsequently safeguard seafarer health, safety and welfare together with an adequate fulfilment of security tasks on board and a reduction in collisions, groundings, near-misses and pollution incidents, all of which incur significant costs to a variety of stakeholders.

Action requested of the Sub-Committee

19 The Sub-Committee is invited to note the proposals requested in paragraphs 13, 14 and 15 to amend the current resolutions on the Principles of Safe Manning.