

Watchkeeping and crewing standards

2025/03 Marine Notice

Guidance for

- Regulated Australian vessel (RAV) owners, operators, masters and crew
- Foreign-flagged vessel owners, operators, flag states, masters and crew operating in Australian waters.

Purpose

This marine notice outlines AMSA's expectations for vessel owners and operators when considering appropriate crewing¹, maintenance of watchkeeping standards and provision of minimum hours of rest, ensuring seafarer fitness for duty.

Owners and operators must ensure they meet the requirements stipulated in Marine Order 28 - *Operations standards and procedures* (Marine Order 28), which gives effect to corresponding sections of the Standards for Training Certification and Watchkeeping (STCW) Code [1].

Additionally, in determining appropriate crewing the International Maritime Organization (IMO) Resolution A.1047(27) *Principles of Minimum Safe Manning* [2], must be taken into account.

Fitness for duty

Ensuring all crew are fit for duty is critical to safe operations. Three international conventions impose obligations.

- In considering, fitness for duty, the STCW Convention specifies that administrations shall take
 account of the danger posed by fatigue of seafarers, especially those whose duties involve the safe
 and secure operation of a ship.
- 2. The Maritime Labour Convention (MLC) [3] requires ships to have a sufficient number of seafarers employed on board to ensure that ships are operated safely, efficiently and with due regard to security under all conditions, taking into account concerns about seafarer fatigue and the particular nature and conditions of the voyage.
- 3. The International Safety Management Code (ISM) [4] stipulates that each ship is appropriately crewed in order to encompass all aspects of maintaining safe operations on board.

¹ Derivations of the word 'crewing' are used by AMSA interchangeably with derivations of the word 'manning', as in <u>IMO</u>, <u>ILO</u>, Australian legislative, and other relevant documents.

Fatigue and crewing

Appropriate crewing needs to account for the risk of fatigue. Fatigue (both physical and mental) poses a serious threat to safety, performance and seafarer wellbeing.

Fatigued crews are more likely to make mistakes, get injured, not follow proper watch-keeping protocols, or fail to recognise early signs that a dangerous situation is developing.

While the STCW Convention and MLC stipulate minimum hours of rest requirements, these alone may not prevent fatigue. Other factors, like sleep quantity and quality, circadian rhythms, environmental conditions and task demands may contribute to fatigue at sea.

Such factors may place immense pressure on crews and can compromise their ability to maintain vigilance, perform duties efficiently, and respond to emergencies [5] - even when hours of rest requirements are technically met.

Ensuring appropriate crewing is one of the primary factors influencing how much rest seafarers receive. This includes:

- hours worked
- work schedules
- average time off work
- other key factors which can influence or elevate the risk of fatigue.

Operators should ensure appropriate crewing as per the ISM Code requirements and the *Principals of Minimum Safe Manning*, to maintain safe operations on board at all times.

Watchkeeping arrangements

Research on watchkeeping shift-schedules has shown the 6 hours on, 6 hours off watch schedule is a significant contributor to fatigue.

Compared to other schedules, the 6 on, 6 off schedule is associated with:

- less daily sleep
- poor-quality, fragmented sleep
- increased likelihood of nodding off (micro-sleeps)
- excessive sleepiness especially in early morning hours [6].

This type of schedule may prevent a seafarer from achieving the minimum 6-hour block of rest required by the STCW Convention. It also impacts the quality of watch handovers, resulting in failure to meet the prescribed expectations for seafarers handing over the watch under the STCW Convention.

An investigation into the grounding and sinking of *Articulated Transport Barge (ATB) Nathan E Stewart* in 2016 [7], by the Transport Safety Bureau, Canada, found that the officer on watch who was engaged on the 6 on 6 off watch schedule at the time suffered acute sleep and circadian rhythm disruption on the three consecutive days preceding the grounding. This watch schedule was identified as a major contributing factor to fatigue. The investigation determined that the watchkeeper had fallen asleep and missed a crucial course alteration, which resulted in the ATB running aground.

Expectations for safe watchkeeping

AMSA is committed to upholding the requirements of all Conventions to ensure seafarers are fit for duty of all seafarers. Our expectation is that operators of vessels in Australian waters will demonstrate compliance with Convention standards, and that the risks associated with fatigue are adequately considered.

AMSA considers that the difficulties faced by watchkeepers to provide or receive a proper watch handover, as well as meet the minimum rest requirements, challenges the effectiveness of a 6 on, 6 off working arrangement.

Ship owners and operators must be able to demonstrate how they are ensuring the standards continue to be met when allowing for both proper watch handover and minimum hours of rest under a 6 on, 6 off arrangements.

AMSA encourages operators who use a 6 on, 6 off watchkeeping arrangement to review their processes to investigate whether other watchkeeping arrangements may be more effective in ensuring adequate sleep and rest for seafarers.

Port State control (PSC) and flag State control (FSC)

Hours of rest requirements and watchkeeping standards giving effect to STCW requirements are established in Australian legislation in Marine Order 28.

AMSA may take enforcement action for serious breaches

Violation of hours of rest requirements or falsifying rest records is unacceptable. AMSA will not tolerate the falsification of hours of rest records and takes these types of breaches seriously.

Vessels may be detained if:

- rest hour records have been altered and do not reflect actual rest hours
- hours of rest records for watchkeepers do not meet the minimum STCW requirements
- compensatory rest has been used for activities that should be planned (such as bunkering, arrivals, departures) leading to systemic rest hour breaches.

Note: overriding operational conditions as permitted under the STCW Convention refers only to "essential shipboard work which cannot be delayed for safety, security or environmental reasons or which could not reasonably have been anticipated at the commencement of the voyage".

Where deficiencies identified individually or collectively provide objective evidence of a serious failure, or lack of effectiveness of the implementation, of the Safety Management System onboard, an ISM detention may be considered.

References

- [1] International Convention on Standards of Training, Certification and Watchkeeping (STCW), 1978
- [2] A.1047(27) Principles of Minimum Safe Manning
- [3] Maritime Labour Convention (MLC), 2006

- [4] International Safety Management Code for the safe management and operation of ships, and for pollution prevention
- [5] International Maritime Organization (IMO) Guidelines on Fatigue (MSC.1/Circ. 1598)
- [6] TK Foundation (2017) Sleepiness and the psychosocial issues associated with long term fatigue at sea Project MARTHA Final Report
- [7] Investigation findings 2016 grounding and sinking of the *Nathan E. Stewart* (Transportation Safety Board of Canada), M16P0378.