

EMPA RECOMMENDATION ON FATIGUE PREVENTION

Introduction

Many studies have shown that fatigue is a critical factor that significantly influences the performance and decision-making capabilities of maritime pilots. As key contributors to the safety and efficiency of maritime operations, it is imperative that member associations prioritise and implement effective fatigue management strategies. This recommendation outlines key considerations and actions to address and mitigate the impact of fatigue on maritime pilots.

Non adequate number of Pilots in pilotage service providers may result in an increase on workload that may lead to an increase in fatigue.

By prioritising the well-being of maritime pilots through effective fatigue management, we strengthen the foundation of safe and efficient maritime navigation. By implementing these recommendations, we commit to fostering a culture that values the health and safety of our maritime pilots, ensuring they are properly rested to carry out their vital duties with the utmost proficiency and alertness.

Consideration

Taking into account:

- The health and well-being of pilots
- That the lack of rest may cause severe diseases from the phycological and psychiatric spectrum. Lack of good quality rest may cause long-term physiological and psychological illness
- The responsibility of pilots' work
- The increased physical and mental strain during nightwork, irregular patterns of work, increased mental workload during poor weather conditions
- The length of period on duty, which includes travelling time
- Scientific studies relating fatigue and working hours
- The avoidance of accidents due to fatigue



- That fatigue is a serious safety risk that can impair cognitive function, reaction times, and overall performance
- Acknowledging that managing fatigue ensures the well-being of maritime pilots and the safety and efficiency of maritime navigation.
- Directive 2003/88/EC of the European Parliament and of the Council of 4 November 2003 concerning certain aspects of the organisation of working time
- Resolution A.960(23) Adopted 5 December 2003 Recommendations on Training and Certification and Operational Procedures for Maritime Pilots other than Deep Sea Pilots
- NASA - San Francisco Bar Pilot Fatigue study NASA/TM—2018–219934
- Psychophysical stress and strain of maritime pilots in Germany. A cross-sectional study (2019, Barbarewicz , Jensen, Harth, Oldenburg)

Policy

- The role of EMPA is to facilitate the exchange of information between its members to continuously improve the professional and technical proficiency of Maritime Pilots in its Member Associations, Pilots within the EU, and in neighbouring countries.
- EMPA aims to assure the safety of all Maritime Pilots in the EU and neighbouring countries by increasing the safety and efficiency of navigation, thereby enhancing environmental protection from ship-borne pollutants.
- EMPA strongly defends and advocates that Pilotage is an essential and unique service to the shipping industry that can only be performed in an environment free from competition.
- EMPA aims to work at the forefront of our profession and collaborate with all stakeholders.
- EMPA recommendations offer practical advice, drawing from its members' collective knowledge and experience, to be read in addition to local, national, and international regulations. These recommendations inform Pilots, shipowners, and Captains, advising stakeholders that directly or indirectly impact the maritime industry.



- EMPA recommendations should be read in conjunction with equipment instructions and manuals. These recommendations are to support training, not replace training and are not to be interpreted as conflicting with local, national, or international regulations.
- Pilots must be fit for duty; this includes not being under the influence of alcohol, drugs, or substances which impair their ability to perform their duty and be adequately rested.
- All pilots should comply with work and rest conditions required by international, national, and local regulations, including the EU Working Time Directive.
- The pilotage service provider/pilotage authority must ensure that a Pilot will not be required to work excessive hours and never be in a position where they are fatigued.
- The pilotage service provider/pilotage authority must ensure a safe system of work is established that allows Pilots to be released from duty if their physical condition becomes impaired by fatigue.
- The pilotage service provider/pilotage authority should ensure that there are strict instructions on maximum hours of work and minimum hours of rest for Pilots.
- In accordance with IMO Resolution A960 the Competent Authority should ensure Pilots to undergo regular medical check-ups.

EMPA Recommends

- In the interest of the safety and efficiency of navigation and protection of the environment, the European Maritime Pilots' Association recommends that Members Associations request the Competent Pilotage Authority and pilotage service providers take the necessary measures to avoid fatigue which can endanger the health (both short and long term) of a pilot and lead to other dangerous occurrences that may compromise the safety and efficiency of the pilotage act.
- The establishment of adequate rest periods, by implementing and enforcing policies that must establish minimum rest periods between assignments. Rest periods must comply with local, national, and international guidelines, considering the unique demands and specificity of pilotage duties, including irregular work hours, harsh environment, and potential circadian rhythm disruptions.
- To conduct regular training sessions and awareness programs to educate maritime pilots, their employers, and relevant stakeholders



about the impact of fatigue on performance and safety. Promote a culture that encourages open communication about fatigue-related concerns without fear of reprisal.

- To create a confidential reporting system for pilots to communicate fatigue-related concerns. This information should be used to identify patterns, assess risk factors, and continuously improve fatigue management strategies.
- Encourage pilots to report fatigue-related incidents without fear of retaliatory measures.
- That as a minimum, members should have implemented good practices on fatigue management, but ideally Fatigue Risk Management Systems (FRMS), tailored to the specific needs of maritime pilotage, including proactive measures, such as scheduling optimisation, to mitigate the risk of fatigue and enhance overall operational safety.
- To apply a continuous improvement process that involves regular reviews of fatigue management policies and practices, identifying areas for improvement and adapt strategies or redesign strategies accordingly.
- Authors like Matthew Walkers may offer some guidance to Pilots in improving sleep quality:
 - Find a routine. Your body's internal clock follows a specific sleep-wake cycle. Going to bed late one night and early the next throws your circadian rhythm off balance. Attempting to catch-up on missed sleep (sleep deficit) over the weekend may not always be effective and can result in physical and mental fatigue. Thus, adhering to a daily sleep schedule can be highly beneficial for your overall health and well-being.
 - Reduce caffeine and nicotine consumption. Caffeine temporarily blocks the signal from adenosine, a crucial sleep chemical in your brain, which nonetheless continues to accumulate. This pent-up adenosine eventually breaks through, causing a dramatic crash, often at inopportune times. Nicotine, another stimulant, can lead to very light sleep. Decaffeinated coffee, does not mean un-caffeinated coffee; un-caffeinated coffee still contains caffeine.
 - Alcohol before bed may help you relax, but too much of it can contribute to a lack of sleep. Alcohol robs you of REM sleep—the deep slumber your brain requires for optimal restoration. Heavy alcohol consumption can also impair your breathing at night and isn't good for staying asleep, either (you tend to wake up multiple times, even if you don't remember doing so).



- When it comes to late-night eating, small snacks are preferable to heavy meals, which can cause indigestion that interferes with your sleep. Avoid drinking fluids a couple of hours before bedtime to prevent frequent bathroom trips in the middle of the night, interrupting sleep, which can lead to sleep fragmentation.
- Some heart and lung medications, and over-the-counter cold and allergy drugs, can disrupt sleep patterns. If you have trouble sleeping, ask your health-care provider or pharmacist if medication may be the culprit—and whether you can take them earlier in the day.
- Create a relaxing routine before bed—like reading, listening to music, or doing light stretching.
- Think of the ideal bedroom as a prehistoric cave somewhere in the Great North: cool, dark, and gadget-free. Charge your phone in another room, get rid of electronics that cause noise, and ditch the alarm clock, which can make you hyper-aware of every passing minute.
- Exposing yourself to natural sunlight for at least 30 minutes a day can help regulate your sleep patterns. Aim to catch those rays in the morning, which can make you more alert as you start your day.
- Lying in bed for prolonged periods, hoping you'll finally nod off, isn't an ineffective sleep strategy, but it can make you anxious and frustrated. Your brain will associate bed with being awake if you do anything in it besides sleeping or sex. If you cannot transition into sleep after about 25 to 30 minutes of lying in bed, get up and do a relaxing activity until you start feeling sleepy.

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