

# Project Horizon



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The club is aware of the need to have in place adequate systems to support seafarers. In this way, the 'human element' associated with many incidents and near-misses can be minimised, see *The Human Element book* and *DVD*.

Proper rest periods are vital, with few of us fully understanding the affect fatigue has on our performance. It is much more than simply feeling sleepy or having difficulty keeping awake. Even for those who remain awake, fatigue will affect their judgment, temperament, perception, mental processing, alertness and reaction time. As one fatigue expert explained, *"having three or four hours lost sleep affects performance in the same manner as being over the legal alcohol limit to drive a car. Yet we stop people driving a car after drinking alcohol but we don't stop them if they have had no sleep, even though the effect is the same."*

The United Kingdom Maritime and Coastguard Agency submitted a paper to the 44th session of the International Maritime Organization (IMO) subcommittee on Standards of Training and Watchkeeping, which reported the outcome of Project Horizon, a research programme into seafarer fatigue. The results were startling and included finding a high incidence of watchkeepers falling asleep when on duty, especially during the night watch.

The results, in very simple terms, demonstrate that whenever sleep is disrupted or sleep is lost, the individual will have a sleep deficit and difficulty staying awake during a night watch. This is especially true for those working a 6-on, 6-off watch pattern, when off-watch periods are less than eight hours. Fatigue was not found when seafarers work regular watch patterns associated with deep sea navigation, but it was found during coastal navigation watches because of the disruption caused when entering or leaving port, or when changing between sea and port watches. Consequently, it is essential to operate a ship to minimise disruption of crew rest periods. For example, will entering or leaving port during a change of watch cause less disruption than during the middle of a rest period? Would flexible watch patterns help? It is worth considering that a sleep deficit is cumulative and can only be eliminated by sleeping.

The most important outcome from Project Horizon was the development of a prototype fatigue management toolkit (MARTHA), which can be used to predict and manage fatigue. It can be downloaded for free from the Project Horizon website.

For more information on fatigue, see [www.project-horizon.eu](http://www.project-horizon.eu) for publication of the final project report and to download the fatigue management toolkit (MARTHA).

For further reading on the human element, see the club's publication *The Human Element, a guide to human behaviour in the shipping industry* and the Walport video *The Human Element*.

