

# The Effect Of Human Factor In Marine Accidents

Researches show that there are basically three factors affecting the occurrence of maritime accidents, which can be counted as technical factors, environmental factors, and the human factor. The last one is stated to be constituting %90 of the main causes due to excessive fatigue caused by long working hours, as well as the impact of isolation, stress, anxiety, adaptation which may lead to misjudgment and lack of performance. According to a noteworthy statistic on the psychological impact of working conditions made by UK Pandi in 2017, it was issued that 15% of crew deaths were suicides.



As a matter of fact, there would not be any other example in another occupational field where this many workers were stuck in a such difficult position. Recently, in February 2023, global maritime community wrote an open letter to the United Nations to draw their attention to this situation which was entitled "Shipping industry call for help to evacuate the 300+ seafarers still trapped in Ukraine ports", demanding the rescue of these seafarers from the region immediately. We still remember how sea crew encountered the effects of the pandemic, just before the difficulties encountered in a war situation.

Many "catastrophes" throughout the marine history have occurred due to human-factor effect, yet we will try to give you a brief insight of a few in this article.

The Titanic incident, the most magnificent cruise ship of its time, is remembered as one of the bitter examples of personnel failure. Due to the records, the ship which was sailing from England to America sank and approximately 70% of the passengers (1,514 people) passed away due to insufficient /careless lookout. As a result of this disaster, the International Convention for the Safety of Life at Sea (SOLAS) was entered into force which aimed to prevent occurrence of similar cases in the future. IMO, which was established in 1948 as an organization authorized by the United Nations put many regulations for the safety, security of the vessels as well as conventions for prevention of marine pollution from marine vessels. Other fundamental conventions such as MARPOL (Prevention of Pollution from Marine Vehicles), Load Line (Loading Limit), STCW (Training Certification of Shipmen and Watch), Torrelimos (Safety of Fishing Vessels), The Intervention (Intervention of Oil Pollution Accidents on High Seas) were also established by IMO which consists of the representatives of many nations to examine the causes and consequences in the seas over the years.

It is frequently heard about the sea crew falling asleep during shifts, especially on ships with a lot of rotation, such as Ro-Ro ships, that require rapid loading and unloading at various ports at short intervals.



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Despite all these regulations, the Costa Concordia, another maritime accident occurred recently which is seen as an important example of human error. In the post-accident investigations, it is understood that the ship ran aground and sank after being damaged, after the ship passed through the coastline with limited lighting at an unacceptably unsafe close distance and due to the master's failure in complying with the procedures during the night cruise. In the accident that occurred due to the master's disobeying the company's instructions and procedures and diverting the ship from safe waters to shallow waters and the evacuation of the people could not be made timely. The master was naturally in charge of the safe evacuation of the passengers, however instead of managing the evacuation of the passengers and crew, he left the ship and the passengers to their own fate. After this disaster, it was aimed to monitor the navigation routes, traffic, and navigation-related data by installing a VDR device on the ships, and to make the use of life-saving vehicles easier to understand and access by the passengers, as well as the crew.

The most important regulation for the welfare of marine workers is undoubtedly the MLC Convention, which entered into force on 20 August 2013. (MLC 2006) The convention, which was arranged to eliminate the physical and mental negativities underlying the accidents, imposes responsibilities on the safe and secure working environment, fair and respectable work and working rights, the protection of health, rest, and social rights of those working at sea. Under the contract, there are rules for establishing the minimum requirements for working at sea together with rules regarding the working conditions, accommodation and recreation facilities, food and beverage services, health protection, medical care, social assistance and social security issues, and compliance-implementation of such principles. With the implementation of the MLC, which is mandatory for ships over 200GT, regulations have also been introduced regarding crew rest hours. By complying with these standards, it is aimed to minimize the human factor in maritime accidents by increasing the welfare and living standards of seafarers.