

The human factors implications in the airline industry

[Science](#), [Social Science](#)



It started during World War II where the engineers' and scientists' work revolved around human operations systems, just as it relates to today's aviation industry (Flight Safety Foundation, 2003). Among these human factors is the issue of fatigue, which can directly or indirectly affect the nature and likelihood of human error in the flight desk, especially with the recent commercial developments. Fatigue has a direct and well established impact on human performance.

To control the effects of fatigue in the aviation industry, fatigue management mechanisms should be employed. These mechanisms involve a process that has three steps: Identifying causes of fatigue, recognizing effects of fatigue and lastly implementing fatigue strategies. Identifying the causes of fatigue is the first step in fatigue management. Having in mind the recent and continuous commercial developments, the likelihood of the flight crew fatigue may be as a result of cumulative sleep debt, unsympathetic rotating shift schedules, extended shifts and flying hours, circadian misalignment and the need to perform additional ground-based management (Flight Safety Foundation, 2003).

These causes may be as a result of inadequately experienced pilots, high utilization rate of crews and lack of administrative support in terms of the work scheduling and other particular areas.

Effects of fatigue may range from minor errors to fatal errors or major accidents. Fatigue makes pilots scan instruments less effectively; it affects their timing actions and ability to anticipate situations with the required level

of accuracy.

Implementing the coping strategies to fatigue would make remarkable progress in improving safety and efficiency required to reduce and manage human errors. With proper management of fatigue, we can optimize the match between people and the systems in which they work, while improving safety and performance. These strategies include;

Conducting Crew Resource Management (CRM) training: The aim of this training is to educate the crew on the limits of human performance as well as to detect when and how they may suffer from fatigue. The necessary action(s) to be taken by anyone suffering from fatigue should also be covered such as having a flexible shift schedule and increased checking (Flight Safety Foundation, 2003).

Putting Standard operating procedures (SOPs) in place: This strategy may reduce fatigue by reducing the need to perform memory intensive work such as decision making and diagnosis, as well as minimize reliance on judgment.