

Aeronautical Noise Management inside an Aerodrome: Analysis of Sound Exposure on Aviation Professional's Health

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Abstract : Noise can cause serious damage to human health, such as hearing loss, stress, irritability, fatigue, and others. Aviation is a place where your entire process should be worked out with the utmost attention and commitment of human resources, thus the need to study the effects of noise in this sector, as aeronautical noise levels are high. This study aimed to evaluate the impact of noise pollution on the performance of professionals regarding the fatigue generated by aeronautical noise and time to noise exposure. The methodology used consists of measurements of sound pressure levels at 42 points of the aerodrome. The selected points are located inside the hangars and outside the airfield hangars. All points chosen are close to the professionals' work areas, seeking to identify the sound pressure levels to which they submitted. The other part of the research used the principle on the application of a self-report questionnaire to a sample of 207 people working inside the aerodrome. The 207 professionals surveyed consist of aircraft mechanics, pilots, maintenance managers, and administrative professionals. The questionnaire was intended to evaluate the knowledge that professionals have about health risks caused by sound exposure as well as to identify diseases that professionals have, and that may be associated with exposure to high levels of sound pressure. Preliminary results identify points with sound pressure levels of up to 91.7 dB, thus highlighting the need for the use of personal protective equipment that reduces noise exposure. It was also identified a large number of professionals who are bothered by the sound exposure and approximately 25% of professionals interviewed reported having a hearing disorder.

Keywords : aeronautical noise, fatigue, noise and health, noise management

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