

Aviation Noise Impacts: State of the Science

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Abstract

Noise is defined as “unwanted sound.” Aircraft noise is one, if not the most detrimental environmental effect of aviation. It can cause community annoyance, disrupt sleep, adversely affect academic performance of children, and could increase the risk for cardiovascular disease of people living in the vicinity of airports. In some airports, noise constrains air traffic growth. This consensus paper was prepared by the Impacts of Science Group of the Committee for Aviation Environmental Protection of the International Civil Aviation Organization and summarizes the state of the science of noise effects research in the areas of noise measurement and prediction, community annoyance, children’s learning, sleep disturbance, and health. It also briefly discusses civilian supersonic aircraft as a future source of aviation noise.

Keywords: Aircraft, annoyance, health, noise, performance, sleep