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Acoustical aspects of travel comfort in the aircraft cabin

Ingo Baumann^a, Sandra Buss^a, Nils Freese^a, Volker Mellert^b and Reinhard Weber^a

^aOldenburg University, Institute of Physics - Acoustics, Carl-von-Ossietzky Str. 9-11, 26111 Oldenburg,
Germany

^bOldenburg University, Institute for Physics, 26111 Oldenburg, Germany

In several European projects tests were conducted during real flights and in aircraft simulators in order to identify important parameters of travel comfort. Physical environmental, physiological and questionnaire data were measured and investigated with respect to human perception. Besides numerous intrinsic quantities affecting health, well-being and awareness of ambience defined measurable environmental parameters influence flight and cabin crews' as well as passengers' perception, psychology and physiology. Sound and vibration are relevant environmental parameters with impact on passenger and crew. Other important influence is caused by e.g. air quality, pressure, local climate. Statistical analysis of the collected data reveals significant correlations between environment and human response for selected groups of test persons. A specific acoustic comfort is not well defined but part of common well-being and comfort. The demand for a general human response model is discussed, which relates ambience and perception.