

# Experiences in Noise Testing of Light General Aviation Airplanes

by

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## Abstract

The noise certification test is an increased requirement which involves the aircraft manufacturer and is gaining popularity for the intrinsic meaning with regard to the problem of the community noise. The airport noise problem has become a real challenge for the Airlines and their pilots. An increasing number of airports are monitoring the noise emitted by the airplanes and they may issue unexpected fees for those who do not meet a regulation which is becoming even more stringent. The paper deals with noise certification procedure of airplanes up to 20.000 lb and specifically those regarding light general aviation airplanes. A review of the procedure and the results obtained for several airplanes are showed, both for identifying a trend and for comparing such results with the increasingly more stringent requirements. These results may be statistically used for a prediction of the expected levels and relative confidence intervals in a new certification campaign. A suggestion for a possible simplification of the test procedure is presented for a monitoring of the noise behaviour with the life of the airplane.

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