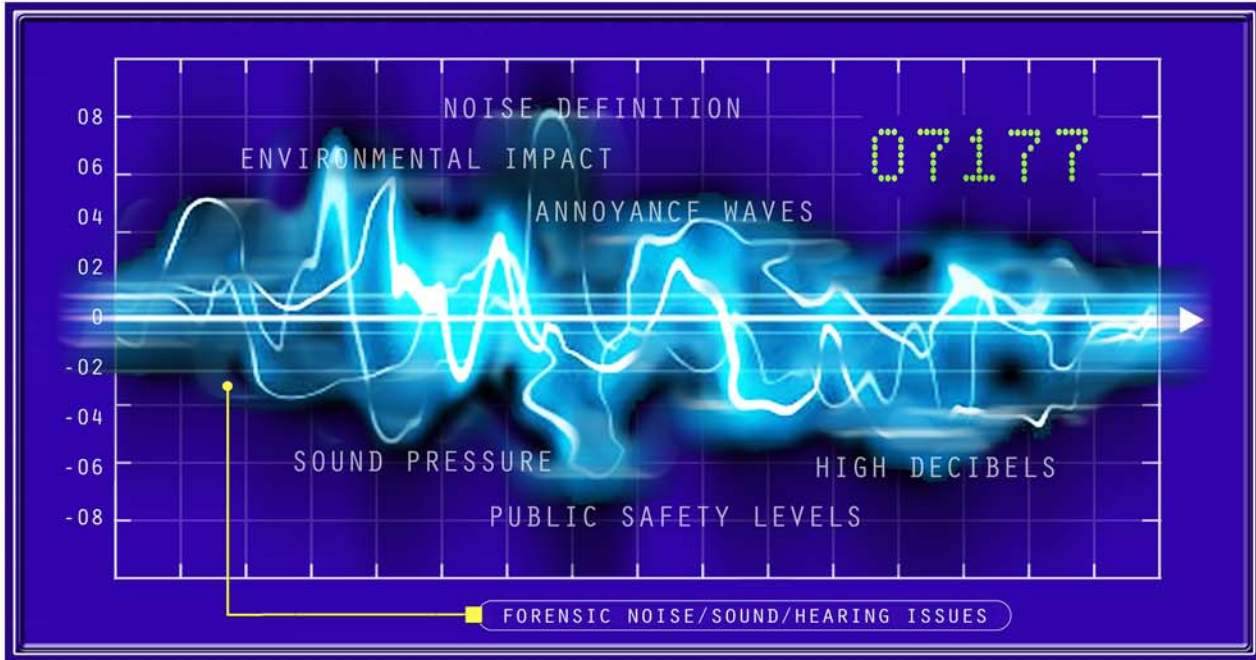


▶ ACOUSTICS EXPERTS



NOISE, SOUND AND ACOUSTICS/ENVIRONMENTAL ANALYSES

To evaluate any aspects of noise, sound, acoustics, hearing, etc., by, for example, various ways to measure whatever sound levels, evaluate characteristics of sounds or sound sources at issue.

■ **Forensic Noise Studies** may be necessary in various forensic acoustics and forensic audiology cases, or for formal studies in the academic, clinical and research aspects of noise, sound, acoustics and hearing, etc. After thoroughly and objectively assessing and analyzing the noise issues, a formal written report may start with the definition of noise, followed by the various ways that sound levels can be measured, characteristics of the sounds at issue as they relate to any city ordinances or codes, design specifications and potential hearing issues, etc.

■ **Forensics Noise Studies** may examine the character of the sound source, which may include but not limited to, numerous and consistently-measured sound readings from several locations, and readings collected under different conditions. Y&J's methodologies, mathematical computations, analyses, interpretations and even the impact of weather, etc., may be detailed in a formal written report.


NOISE, SOUND AND ACOUSTICS/ENVIRONMENTAL ANALYSES (continue)

■ **Forensic Noise Studies** may properly assess the potential significant health, psychological and educational risks that have been identified with certain environmental noises, or assess noise-induced hearing loss (NIHL), OSHA-compliance, building acoustics, industrial noise, etc. The following are some examples of what may be evaluated based on **Forensic Noise Studies**: *physiological and psychological effects of certain noise, damage to hearing, speech interference, sleep interference, effect of certain environmental noise on children's health, effect of certain noises on learning, impact on activity interference and annoyance, etc.*

■ **Y&J's sound level meters**, whether used for continuous or short-term noise level measurements, are calibrated before use with acoustical calibrators to ensure the accuracy of all measurements. These meters all meet applicable specifications of the American National Standards Institute (ANSI) for precision sound level measurement systems.

RECENT CASES:

1) In a high-profile case in which a murder occurred in one part of a residence while one occupant slept in another part of the residence, **Y&J** testified that research on the subject of noise disruption of sleep has found that a person's sleep can be interrupted or disturbed by sound levels between 60 and 84 dB, but rarely is a person awakened by those sounds. Various sound measurement readings on-site under various circumstances were made. This criminal case pled out before litigation.

2) In a high-profile case involving the acoustics and timing of two different gunshots, the defendant claimed that he fired after the police did, and the police claimed that the defendant fired first. The felony charges were dropped after Y&J's analyses became public. For more details of this particular case, [click here](#) for the PDF file. 

3) In a high-profile case involving the planned building of a private airstrip in which surrounding neighbors objected to the same, various relevant sound recordings were measured on-site using a Cessna 525. The case was settled after the **Y&J** report but before litigation.

■ Other cases include consultations to i) measure and interpret recorded noise levels of the SST Concorde (super-sonic turbojet) at commercial airports, ii) measure traffic noise and subsequent evaluation of alternatives analyses, iii) assess and analyze Noise Level Monitoring for Operation Pitch Black (RAAF, Darwin, Australia), iv) measure sound levels of oil drilling platforms, large transformer noise from electrical distribution substations, motorcycles on a race track near residences, neighbors with barking dogs, etc.