

Obituary

Sanford A. Fidell, 1945–2023



Sanford A. (Sandy) Fidell, Fellow of the Acoustical Society of America and an associate editor of *The Journal of the Acoustical Society of America*,

passed away on February 27, 2023, at the age of 77. Sandy was born in New York, New York, on May 11, 1945, and graduated from Trinity College, Hartford, Connecticut. He completed his PhD from the University of Michigan (Ann Arbor) Experimental Psychology Program in 1968 under the supervision of Wilson P. “Spike” Tanner, John Swets, and David Green. His doctoral thesis demonstrated that by presenting auditory (headphone) and visual (oscilloscope) sensory sine wave stimuli simultaneously, detection performance was improved over either input in isolation. In August 1968, he began work at Bolt Beranek and Newman (BBN), Van Nuys, California. Sandy’s hobbies included music and amateur film making.

Sandy’s professional interests lay primarily in auditory signal detection and community noise exposure-response relationships. As a former head of BBN’s Psychoacoustics Department and then of his own company, Fidell Associates, Inc., he pursued both interests with equal vigor. He always engaged a core group of diversely skilled individuals who aided in bringing his ideas to fruition.

Sandy’s broad range of clients came from both the public and private sectors. He was instrumental in developing BBN’s psychoacoustic laboratory where he conducted numerous cutting-edge auditory detection experiments. Among many others, very low frequency auditory bandwidth tests to guide helicopter aural detection models were used by both NASA and the US Army. Sandy also conducted emergency warning signal audibility and noticeability tests to establish predictive models for both phenomena. He also designed and guided aircraft auditory detection software development for the US Army, Air Force, and National Park Service.

Sandy’s interest in community noise exposure-response relationships began with collaborations with Theodore (Ted) Schultz. After considering several functional forms

for such relationships, he championed the concept of a community tolerance level (CTL) in which the slope of the function was fixed and determined by a growth of loudness model. By so doing, differences in noise tolerance between communities could be numerically evaluated. For 24 years, Sandy was a presenter at the annual University of California, Berkeley short course on Airport Systems Planning and Design. Based on his broad experience studying aircraft noise impacts and noise management actions at many airports across the United States, he provided an understanding of people’s reactions to aircraft noise as well as of mitigation strategies to airport professionals.

Sandy’s ability to focus on the big picture as well as small details is exemplified by his guidance to NASA’s upcoming low-boom supersonic overflight community-reaction study. Sandy demonstrated smartphone technology’s ability to acquire immediate reactions to individual booms while also examining the entire data collection and analysis process to recommend an integrated, cost-effective, least-risk approach to real-time integration of aircraft trajectory, boom sound level, and subjective-response data.

Sandy was a prolific writer, with over 60 journal publications and over 100 conference presentations. His extensive vocabulary (foreign and English) along with his fastidious attention to grammatical correctness will be missed.

Selected Publications by Sanford A. Fidell

- Fidell, S., and Mestre, V. (2020). *A Guide To U.S. Aircraft Noise Regulatory Policy*, 1st ed. Springer Cham, Cham, Switzerland.
- Fidell, S., Horonjeff, R., Teffeteller, S., and Green, D. (1983). Effective masking bandwidths at low frequencies. *The Journal of the Acoustical Society of America* 73(2), 628-638.
- Fidell, S., Schultz, T. J., and Green, D. (1988). A theoretical interpretation of the prevalence rate of noise-induced annoyance in residential populations. *The Journal of the Acoustical Society of America* 84(6), 2109-2113.

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