



## Where we go from here to engineer a quieter America

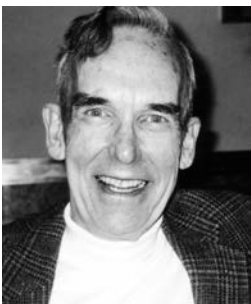
### Abstract

To engineer a quieter America requires action by engineers in private industry, consulting firms, government, academe, and professional societies. Public pressure must also be a driving force. Interactions with government agencies, including regulatory bodies, are necessary to develop a comprehensive national noise policy.

The National Academies Press published the Technology for a Quieter America (TQA) consensus report in 2010 with twenty-eight recommendations, many of them addressed to federal regulatory agencies. The TQA report was prepared by a committee of the National Academy of Engineering (NAE). The TQA Follow-up Team of the NAE is targeting specific recommendations for implementation and has organized three successful workshops to date on motorcycle noise, quiet pavements or barriers, and quiet manufacturing facilities of the future. All were held in National Academies' facilities. Each of the workshops brought together the principal stakeholders on the issue including regulatory authorities, trade associations, manufacturers, and representatives of the public.

The workshop reports include recommendations to specific regulatory bodies for carrying out the recommendations of the TQA report. Workshops currently in the planning stage target progress on consumer and industrial product noise reduction, the noise reductions of the U.S. Department of Transportation modal agencies, and U.S. Department of Defense noise issues. The TQA team's model of the TQA report followed by workshops, reports, and recommendations on specific subjects represents a realistic approach for engineering a quieter America for future generations.

### William W. Lang



WILLIAM W. LANG has served as the president of the Noise Control Foundation (NCF) since 1975. NCF is currently working on the development of global policies for noise control. He worked for the IBM Corporation from 1958 to 1992. As a founding member of the Institute of Noise Control Engineering of the United States (INCE/USA) and cofounder of the International Institute of Noise Control Engineering (I-INCE), he is dedicated to furthering worldwide recognition of noise control as a distinct engineering discipline.

Dr. Lang chaired the International Electrotechnical Commission's Technical Committee 29 on Electroacoustics from 1975 to 1984 and is a member of the International Organization for Standardization's Working Group on machinery noise emission standards. He was a member of the NRC Committee on Hearing and Bioacoustics. Dr. Lang is a fellow of the Acoustical Society of America (ASA), Institute of Electrical and Electronic Engineers (IEEE), American Association for the Advancement of Science (AAAS), Audio Engineering Society (AES), and UK Institute of Acoustics. He was recently elected an Honorary Member of the National Council of Acoustical Consultants.

He has received the ASA Silver Medal in Noise, the INCE/USA Distinguished Noise Control Engineer Award, the Pro Silentio Medal of the Hungarian Optical, Acoustical, and Film Technical Society, the Clarissima Award of the Brazilian Acoustical Society, and the IEEE Audio and Electroacoustics Achievement Award. He has served as an IEEE director and has authored or coauthored more than 50 technical publications and edited two books. He was elected to the National Academy of Engineering in 1978. Dr. Lang holds an MS degree (physics/EE) from the Massachusetts Institute

of Technology and a PhD in physics (acoustics) from Iowa State University, and is a registered professional engineer (EE) in New York state.

### **George C. Maling, Jr**



GEORGE C. MALING JR. is former managing director of the Institute of Noise Control Engineering of the USA (INCE/USA), past president of the INCE Foundation, managing editor emeritus of Noise/News International, and vice president for communications of the International INCE. He chaired the committee that produced the NAE report Technology for a Quieter America (2010).

In 1958 Dr. Maling became a consultant to the International Business Machines Corporation (IBM), and he joined the company in 1965. In 1992 he retired as senior engineer, having worked on numerous projects related to noise control engineering, including research, standards, and product design. During his IBM years he worked on several national and international standards and served a term as chair of the American National Standards Committee S1, which at the time included noise measurement standards.

Dr. Maling is the author of more than 80 technical papers and several articles in handbooks—most recently a chapter on noise for the Springer Handbook of Acoustics (2007). He has also edited numerous conference proceedings for the INTER-NOISE and NOISE-CON series of conferences. He is a fellow of INCE, IEEE, AAAS, ASA, and AES. He received the Silver Medal in Noise from ASA in 1992 and the Rayleigh Medal from the Institute of Acoustics (United Kingdom) in 1999. Recently, he was elected an honorary member of the National Council of Acoustical Consultants.

He served as president of INCE/USA in 1975 and received the Distinguished Noise Control Engineer Award from that organization in 2001 and its Distinguished Service Medal in 2009. Dr. Maling was elected to the National Academy of Engineering in 1998.