ANSI/ASA S3/SC1.100-2014
ANSI/ASA S12.100-2014
(a joint project between ASC S3/SC 1 and ASC S12)

AMERICAN NATIONAL STANDARD

Methods to Define and Measure the Residual Sound in Protected Natural and Quiet Residential Areas

Secretariat:

Acoustical Society of America

Approved on December 5, 2014, by:

American National Standards Institute, Inc.

Abstract

This standard specifies measurement procedures for characterizing residual sound levels in protected natural areas and quiet residential areas. The standard specifies instrumentation, measurement durations, and statistical procedures for summarizing the data. A filtering procedure is provided that can be applied to A-weighted data to exclude high frequency sound energy where appropriate or warranted. The statistical procedure for calculating exceedance values like L_{90} is specified.

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Foreword

[*This Foreword is for information only, and is not a part of the American National Standard* ANSI/ASA S3/SC1.100-2014 / ANSI/ASA S12.100-2014 American National Standard Methods to Define and Measure the Residual Sound in Protected Natural and Quiet Residential Areas. *As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the standard.*]

This new standard, for which there is no ISO or EN counterpart, was developed and approved as a joint project between ANSI-Accredited Standards Committee S3/SC 1, Animal Bioacoustics, and ANSI-Accredited Standards Committee S12, Noise. It comprises a part of a group of definitions, standards, and specifications for use in the fields of psychological acoustics, physiological acoustics, and acoustic ecology as it affects both humans and animals. It was developed and approved by both ASC S3/SC 1 and ASC S12 under their approved operating procedures. Those procedures have been accredited by the American National Standards Institute (ANSI).

The Scope of **Accredited Standards Committee S3/SC 1** is as follows:

> *Standards, specifications, methods of measurement and test, instrumentation, and terminology in the field of psychological and physiological acoustics, including aspects of general acoustics which pertain to biological safety, tolerance, and comfort of non-human animals, including both risk to individual animals and to the long-term viability of populations. Animals to be covered may potentially include commercially grown food animals; animals harvested for food in the wild; pets; laboratory animals; exotic species in zoos, oceanaria or aquariums; or free-ranging wild animals.*

The Scope of **Accredited Standards Committee S12** is as follows:

> *Standards, specifications, and terminology in the field of acoustical noise pertaining to methods of measurement, evaluation, and control, including biological safety, tolerance, and comfort, and physical acoustics as related to environmental and occupational noise.*

At the time this Standard was submitted to Accredited Standards Committee S3/SC 1, Animal Bioacoustics, for approval the membership was as follows:

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Suggestions for improvements to this standard will be welcomed. They should be sent to Accredited Standards Committees S3/SC 1, Animal Bioacoustics, and/or S12, Noise, in care of the Standards Secretariat of the Acoustical Society of America, 1305 Walt Whitman Road, Suite 300, Melville, New York 11747. Telephone: 631-390-0215; FAX: 631-923-2875; E-mail: asastds@acousticalsociety.org.

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