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(Revision of ANSI S2.1-2000 / ISO 2041:1990)

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June 19, 2020

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## AMERICAN NATIONAL STANDARD

### **Mechanical vibration, shock and condition monitoring – Vocabulary**

(a Nationally Adopted International Standard)

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ANSI/ASA S2.1-2009/ISO 2041 :2009

Accredited Standards Committee S2, Mechanical Vibration and Shock

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Standards Secretariat  
Acoustical Society of America  
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AMERICAN NATIONAL STANDARD

**Mechanical vibration, shock and condition  
monitoring – Vocabulary**

(a Nationally Adopted International Standard)

**Secretariat:**

**Acoustical Society of America**

**Approved October 8, 2009 by:**

**American National Standards Institute, Inc.**

**Abstract**

This Nationally Adopted International Standard defines terms and expressions unique to the areas of mechanical vibration, shock and condition monitoring.

## AMERICAN NATIONAL STANDARDS ON ACOUSTICS

The Acoustical Society of America (ASA) provides the Secretariat for Accredited Standards Committees S1 on Acoustics, S2 on Mechanical Vibration and Shock, S3 on Bioacoustics, S3/SC 1 on Animal Bioacoustics, and S12 on Noise. These committees have wide representation from the technical community (manufacturers, consumers, trade associations, organizations with a general interest, and government representatives). The standards are published by the Acoustical Society of America through the American Institute of Physics as American National Standards after approval by their respective Standards Committees and the American National Standards Institute (ANSI).

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## Foreword

[This Foreword is for information only and is not a part of ANSI/ASA S2.1-2009 / ISO 2041:2009 American National Standard Mechanical vibration, shock and condition monitoring – Vocabulary.]

This nationally adopted international standard comprises a part of a group of definitions, standards, and specifications for use in mechanical vibration and shock. It was developed and approved by Accredited Standards Committee S2 Mechanical Vibration and Shock, under its approved operating procedures. Those procedures have been accredited by the American National Standards Institute (ANSI). The Scope of Accredited Standards Committee S2 is as follows:

*Standards, specification, methods of measurement and test, and terminology in the field of mechanical vibration and shock, and condition monitoring and diagnostics of machines, including the effects of exposure to mechanical vibration and shock on humans, including those aspects which pertain to biological safety, tolerance and comfort.*

This standard is an identical national adoption of ISO 2041:2009 which was prepared by Technical Committee ISO/TC 108, *Mechanical vibration, shock and condition monitoring*. This standard is a revision of ANSI S2.1-2000/ISO 2041:1990. This revision reflects advances in technology and refinements in terms used in the previous version. As such, it incorporates more precise definitions of some terms reflecting changes in accepted meaning. New terms which were driven by changes in technology (primarily in the areas of signal processing, condition monitoring and vibration and shock diagnostics and prognostics) are incorporated.

At the time this Standard was submitted to Accredited Standards Committee S2, Mechanical Vibration and Shock for approval, the membership was as follows:

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Working Group S2/WG 2, Terminology and Nomenclature in the Field of Mechanical Vibration and Shock and Condition Monitoring and Diagnostics of Machines, which assisted Accredited Standards Committee S2, Mechanical Vibration and Shock, in the development of this standard, had the following membership.

D.J. Evans, Chair

M. Craun                      C.F. Gaumont  
B.E. Douglas                R.J. Peppin

Suggestions for improvements of this standard will be welcomed. They should be sent to Accredited Standards Committee S2, Mechanical Vibration and Shock, in care of the Standards Secretariat of the Acoustical Society of America, 35 Pinelawn Road, Suite 114E, Melville, New York 11747-3177. Telephone: 631-390-0215; FAX: 631-390-0217; E-mail: [asastds@aip.org](mailto:asastds@aip.org).



## **Introduction**

Vocabulary is the most basic of subjects for standardization. Without an accepted standard for the definition of terminology, the development of other technical standards in a technical area becomes a laborious and time-consuming task that would ultimately result in the inefficient use of time and a high probability of misinterpretation.