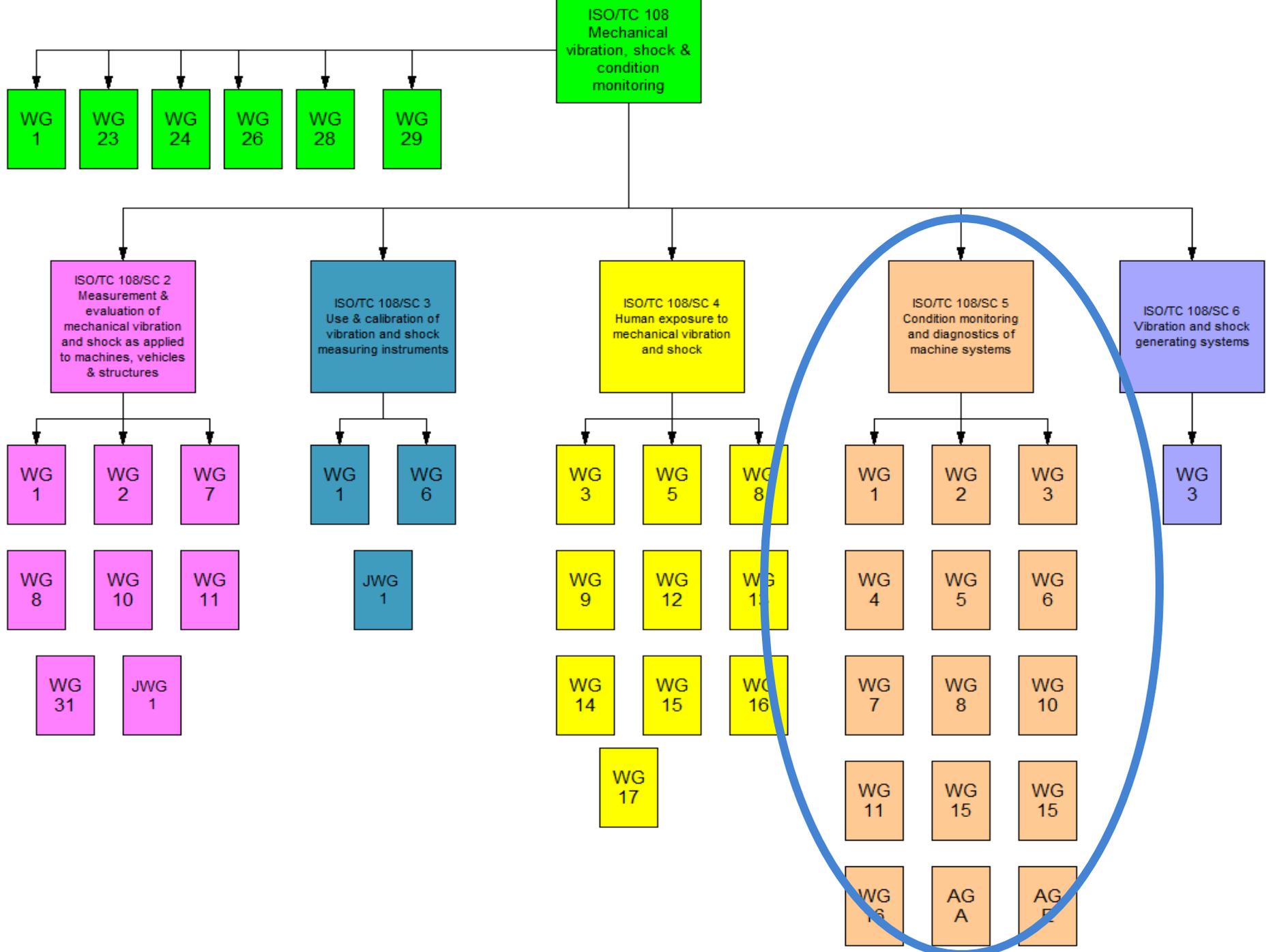


The PHM Society's role as a member of the ANSI-Accredited US TAG to ISO/TC 108/SC 5 Condition monitoring and diagnostics of machine systems

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Plan for this talk

- * ISO/TC 108 context for SC 5
- * Intro to ISO/TC 108/SC 5 (scope and body of work)
- * Steps in the ISO standards development process
- * What is the U.S. TAG?
- * Why should an organization join the TAG?
- * What does the TAG actually do?
- * What does “voluntary consensus standards” mean?



ISO/TC 108/SC 5 Condition monitoring and diagnostics of machine systems

Standardization of the procedures, processes and equipment requirements uniquely related to the technical activity of condition monitoring and diagnostics of machine systems in which selected physical parameters associated with an operating machine system are periodically or continuously sensed, measured and recorded for the interim purpose of reducing, analyzing, comparing and displaying the data and information so obtained and for the ultimate purpose of using this interim result to support decisions related to the operation and maintenance of the machine system.

The members of ISO/TC 108/SC 5

- * **P Members (22):** Australia (SA), Belgium(NBN), Canada (SCC), China (SAC), Czech-Rep. (UNMZ), Denmark (DS), Egypt (EOS), Finland (SFS), France (AFNOR), Germany (DIN), India (BIS), Ireland (NSAI), Japan (JISC), Rep. of Korea (KATS), Nigeria (SON), Norway (SN), Portugal (IPQ), Russian Federation (GOST R), Sweden (SIS), Switzerland (SNV), United Kingdom (BSI), USA (ANSI).
- * **O Members (11):** Argentina (IRAM), Austria (ASI), Brazil (ABNT), Hong Kong, China (ITCHKSAR), Italy (UNI), New Zealand (SNZ), Pakistan (PSQCA), Romania (ASRO), Slovakia (SUTN), South Africa (SABS), Spain (AENOR).

Overview

Vocabulary
CM&D general
guidelines

CM&D Techniques

Vibration (SC 2)
Tribology
Acoustic emissions
Thermography
Ultrasound

Training & Assessment

Vibration
Tribology
Acoustic emissions
Thermography
Ultrasound

**Requirements for
training & assessment
bodies**

**Data processing,
communication &
presentation**

Diagnostics

General guidelines
Data-driven app.
Knowledge-based
Performance
monitoring &
diagnosis
Vibration (SC 2)

Prognostics

General Guidelines
Performance based
Cyclic driven life
usage
Useful life remaining
prediction models

Application specific

Structures (TC)
Three-phase
induction motors
Power transformers
Wind turbines

Steps in the ISO process

- * New work item proposal (NP)
 - * Bottom-up process – idea comes from the technical community
 - * Working group is formed – expert members appointed by each country
 - * Working draft (WD)
- * Committee draft (CD) *
- * Draft International Standard (DIS or CDV)
- * Final Draft International Standard (FDIS) *
- * Systematic Review (SR)

*** Stage is now optional at the committee's discretion**

What is the U.S. TAG to ISO/TC 108/SC 5?

- * The U.S. TAG is the *only* avenue for U.S. stakeholders to have a voice in ISO standards development.
- * No opportunity for direct organizational membership in ISO.
- * ANSI is the sole U.S. voter in ISO -- the TAG tells ANSI how to vote.
- * All U.S. TAGs are formed in ANSI's name but... they are organized, managed *and funded* by the U.S. TAG Administrator organization.
- * This TAG is administered by the Acoustical Society of America which also provides the International Secretariat for SC 5.

Why is it important for an organization to join the U.S. TAG?

- * To influence the content of relevant standards.
- * To monitor future changes (advance intelligence).
- * To promote harmonization among international standards, national standards and industry standards.
- * To ensure that products can be exported worldwide.
- * To minimize the need for government regulation.
- * To establish the leadership position of your organization.
- * To network with other experts in your field.

What does the U.S. TAG do?

- * At *each* voting stage, we announce the availability of the document to the U.S. TAG members.
- * The announcement includes the scope of the document, the voting deadlines, and instructions.
- * Members who want to review the document opt-in.
- * If you opt-in, you are *expected* to reply, even if only to abstain or say yes with no comments.
- * **You should participate even if you are on the WG.**

What does the term “voluntary consensus standards” mean?

- * ISO standards are not law.
- * Use of a standard is generally voluntary.
- * **Consensus** implies
 - ✓ General agreement
 - ✓ Involvement of stakeholders
 - ✓ All views are considered
 - ✓ Effort to resolve objections
 - ✓ Consensus need not imply unanimity

Who's in the TAG

- * Acoustical Society of America
- * American Industrial Hygiene Assoc.
- * Ariel Corporation
- * Association of American Railroads
- * BP America
- * Calnetix
- * Caterpillar
- * Commercial Vehicle Group
- * Condition Analyzing Corp.
- * Duke Univ. Dept. of Biomedical Engineering
- * Eckardt Johanning, MD, PC
- * Emerson Electric
- * Endevco
- * General Electric
- * Infrared Training Center
- * International Council for Machinery Lubrication
- * John Deere
- * Marketing Assessment, Inc.
- * Mechanical Solutions, Inc.
- * MIMOSA
- * NASA Ames Research Center

- * National Institute of Standards & Technology
- * NIOSH
- * PCB Group
- * **PHM Society**
- * Power Tool Institute
- * Schenck Trebel Corp
- * Shock & Vibration Exchange
- * Siemens Power Generation, Inc.
- * Sinclair PLLC
- * UE Systems
- * University of Washington
- * US Air Force
- * US Army Aeromedical Research Lab
- * US Army Center for Health Promotion
- * US NSWC- Carderock
- * US NSWC- Panama City
- * USDOT - Volpe Ctr.
- * Vibration Institute
- * V-Tek Associates, LLC
- * Waukesha Magnetic Bearings

Thank you!

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* Visit our website

<http://acousticalsociety.org/standards/>

Visit www.standardsboostbusiness.org to see case studies and learn more about the value of direct participation in the development of standards that affect your business.