

Meeting Report
ISO Technical Committee 43, Subcommittee 3
Woods Hole, Massachusetts, USA
June 11-13, 2012

Technical Committee 43 – Subcommittee 3, Underwater Acoustics – Plenary Meeting Number 1

1. Scope: “Standardization in the field of underwater acoustics (including natural, biological, and anthropogenic sound), including methods of measurement and assessment of the generation, propagation and reception of underwater sound and its reflection and scattering in the underwater environment including the seabed, sea surface and biological organisms, and also including all aspects of the effects of underwater sound on the underwater environment, humans, and aquatic life.”

The scope of this SC is the same as airborne acoustics but in the underwater environment. There are currently parallel efforts in other TCs and the SC needs to define its activities with other TCs. The SC should also branch out and look at emerging sources.

2. Report of Secretariat: Committee formally established in December 2011. Chairman is Dr. George Frisk (USA). 12 P members, 5 O members, 4 established liaisons (ICOMIA is one). This subcommittee also wants to liaison with both TC 188 and ICOMIA, along with IMO. Established WG 1, Measurement of underwater sound from ships. There is concern that a number of other ISO TCs are doing similar work and that there is potential for confusion in industry.
3. WG1 Report: Started with the ANSI standard on measurement of underwater noise from ships. Finished scope, references and definitions. Needs to define “source level.” Future work will focus on how to convert from sound pressure measurements to source levels. This is a deep water standard. A future NWI may be a similar standard for shallow water. Another NWI will be on terminology. (BTW, there are no fees from ISO for NWIs(!)).
4. Organization: ISO 43 has three subcommittees: Noise (SC1), Building acoustics (SC2), and Underwater acoustics (SC3).
5. The secretary detailed the ISO standard development process. Also explained the use of the ISO Online Browsing Platform, Electropedia, and availability of web-ex meetings (webconferencing@iso.com).
6. New Work Items under consideration:
 - A. Acoustical terminology for underwater sound (but do not create a new definition for sound pressure level - use an existing definition); this is the first NWI to be started.
 - B. Measuring impact pile driving noise (approved for NWI)
 - C. Measuring radiated noise from ships in shallow water (To be discussed at WG1)
 - D. Measuring ambient noise (Need scope & convener)
 - E. Other measurement standards (explosions, active sonars, seismic studies, etc.)
7. Longer term future work items:
 - A. Standard for modeling protocol.

8. TC43 will be sending a letter to the chair of the ISO Technical Management Board expressing concern of the autonomous actions of TC8 in developing their own underwater sound standard without the expertise and input of the members of TC43. TC43 had previously asked to corroborate with TC8 on development of an underwater test standard. TC8 not only did not respond to the request but fast tracked their own standard immediately to a DIS. TC43 also developed comments to the TC8 standard for future submittal. (Note/Action: Does ICOMIA want to liaison with the TC8 SC working on underwater sound standards?)
9. Ballots will be forthcoming on the formation of three WGs and the initiation of three NWI standards.
10. Next Action: The next plenary meeting of ISO TC 43 will be at DIN in Berlin in May 21-24, 2013.

Technical Committee 43 – Subcommittee 3 - Working Group 1, Measurement of underwater sound from ships

1. This is the first WG of the Subcommittee. 40 members (it's a big group). Need to develop NWI proposals.

ISO/WD 17208-1, Acoustics: Qualities and procedures for description and measurement of underwater sound from ships, Part 1: General requirements for measurements in deep water.

1. The WG debated the definitions of the three source levels.
2. The WG debated the probability of generating different results due to the distance of the ships to the hydrophones and how to average the measurement of large ships. Debated the distance of the pass-by, proposed to be a minimum of 100m to two times the length of the ship and a maximum of three times the length of the ship. How does the depth of the ship affect the measurement? Pass-by speed not yet defined.
3. The WG feels that a higher than minimum standard is needed which will add to the cost of underwater testing in both cables and hydrophones.
4. Next action: Convener will make all revisions and forward to WG for their review.

ISO/CD 16554, Ships and marine technology: Marine environmental protection – Measurements and reporting of underwater sound radiated from merchant ships.

1. This is a TC8 standard that TC43 has strong objections due to the many errors. TC43 asked to be involved in the rewrite of this standard and was summarily dismissed by TC8. TC43 will continue to pursue but doesn't expect any change. Now what to do about this substandard standard?
2. This is a standard for use in both deep and shallow water.
3. Next action: This document was fast tracked to a DIS vote.