#### AITS FUNDED REPORT OF INTERNATIONAL/EUROPEAN MEETING

This report is to be submitted to the relevant BSI Programme Manager at the same time as the AITS form is returned (i.e. within 1 month of the date of the meeting). It will then be circulated to the relevant BSI Technical Committee.

Meeting of Committee: ISO/TC43

Date(s) of Meeting: 16<sup>th</sup> November 2018

Place of Meeting: Matsue, Japan.

(Town & Country)

Author of report: Phil Dunbavin

Other UK attendees: None.

Countries & number in delegations [e.g. DE(4)]

France (3), USA (3), Germany (7), Japan (6), Canada (1), Sweden (1), Norway (2), Finland (1), Denmark (2), South Korea (1).

## Additional major papers circulated at meeting

There were no additional papers

## Items added to Agenda at meeting

There were no items added to the agenda.

#### List of discussed items

See the agenda at the end of this report.

#### Other comments/items

There were no other comments/items.

Date of Next Meeting: 8<sup>th</sup> to 12<sup>th</sup> of June 2020.

Proposed venue for next meeting: Paris, France.

#### Report from delegate

1. Opening of the meeting (immediately following the ISO/TC 43/SC 1 meeting.

The meeting was opened.

2. Roll call of delegates

The roll call was taken.

3. Adoption of the agenda Doc. ISO/TC 43 N 1379

The draft agenda was adopted.

4. Appointment of the drafting committee

A drafting committee was appointed.

5. Report of the Secretariat Doc. ISO/TC 43 N1386

The report was presented.

6. Strategic Business Plan Doc. ISO/TC 43 N 1303, N 1383

The strategic business plan was considered and approved.

7. Decision on reviews from 2018

7.1. ISO 389-7:2005 "Acoustics — Reference zero for the calibration of audiometric equipment — Part 7:Reference threshold of hearing under free-field and diffuse-field listening conditions" Doc. ISO/TC 43 N 1371

It was proposed that this is a minor revision in WG1 with a timeline of 18 months.

7.2. ISO 1999:2013 "Acoustics — Estimation of noise-induced hearing loss" Doc. ISO/TC 43 N 1372

It was proposed to confirm this standard at this time.

7.3. ISO 11904-1:2002 "Acoustics — Determination of sound immission from sound sources placed close to the ear — Part 1: Technique using a microphone in a real ear (MIRE technique)" Doc. ISO/TC 43 N 1373

It was proposed that this standard.

8. Reports from working groups Doc. ISO/TC 43 N1385

These reports are appended to the report after the draft agenda. These cover the following areas:

- 8.1. WG 1 Threshold of hearing
- 8.2. WG 9 Method for calculating loudness level
- 8.3. WG 10 Hearing aid fitting management

9. Items for future work

There were no items submitted.

10. Disbanding of working groups

There were no working groups to be disbanded.

11. Work items on which no progress is being made – Status and action to be taken

There were no such items.

12. Review of preliminary work items

There were no preliminary work items.

13. Requirements concerning a subsequent meeting

8<sup>th</sup> to 12<sup>th</sup> of June 2020, in Paris, France.

14. Any other business

ISO is conducting a survey on how meetings and working groups can be improved.

15. Approval of resolutions

A number of resolutions were considered and the outcome of these will be circulated by ISO later. In essence the resolutions cover everything that was discussed at the plenary meeting.

16. Closing of the meeting

The meeting was closed.

## ISO/TC 43 N 1379

# 1st REVISED DRAFT AGENDA/PROJET D'ORDRE DU JOUR (supersedes doc. ISO/TC 43 N 1365)

1	Opening of the meeting (immediately following the ISO/TC 43/SC 1 meeting)
2	Roll call of delegates
	option of the agenda c. ISO/TC 43 N 1379
4	Appointment of the drafting committee
	oort of the Secretariat c. ISO/TC 43 N*
6 Doo	Strategic Business Plan c. ISO/TC 43 N 1303, N 1374
7	Decision on reviews from 2018
7.1. ISO 3 Part 7:	89-7:2005 "Acoustics — Reference zero for the calibration of audiometric equipment —
Ref	erence threshold of hearing under free-field and diffuse-field listening conditions" c. ISO/TC 43 N 1371
	999:2013 "Acoustics — Estimation of noise-induced hearing loss" c. ISO/TC 43 N 1372
7.3. ISO 11904-1:2002 "Acoustics — Determination of sound immission from sound sources placed to	
the	ear — Part 1: Technique using a microphone in a real ear (MIRE technique)" c. ISO/TC 43 N 1373
8 Reports from working groups Doc. ISO/TC 43 N*	
8.1. WG 1 – Threshold of hearing	
8.2. WG 9	Method for calculating loudness level
8.3. WG 1	0 – Hearing aid fitting management
9	Items for future work
10	Disbanding of working groups
11	Work items on which no progress is being made – Status and action to be taken
12	Review of preliminary work items
13	Requirements concerning a subsequent meeting
14	Any other business
15	Approval of resolutions
15	Closing of the meeting

ISO/TC 43 N 1385

October 2018

# REPORTS FROM WORKING GROUPS UNDER ISO/TC 43 "ACOUSTICS"

to its 40<sup>th</sup> meeting, 2018-11-16, Matsue, Japan

## WG 1 - Threshold of hearing

## 1. Meetings

There have been no WG 1 meetings since the last TC 43 meeting in May 2017 in Copenhagen, Denmark. WG 1 will meet next time in conjunction with the TC 43 plenary meeting in 2018 in Matsue.

#### 2. Status of documents

Finalized standards since the last TC 43 meeting

The revised International Standard below was published after the Copenhagen meeting.

#### ISO 389-1:2017

Acoustics – Reference zero for the calibration of audiometric equipment – Part 1: Reference equivalent threshold sound pressure levels for pure tones and supra-aural earphones

#### Active items

#### ISO 8253-3

Acoustics – Audiometric test methods – Part 3: Speech audiometry (Revision of ISO 8253-3:2012)

At the Copenhagen meeting, TC 43 decided to revise ISO 8253-3:2012 by resolving the technical comments collected at its systematic review in 2017, keeping the scope unchanged. The task was allocated to WG 1 with Thomas Fedtke, Germany, as project leader and with the enlarged development track of 48 months.

WG 1 will discuss a 1<sup>st</sup> WD to be presented by the project leader at the Matsue meeting.

#### Other items

Review of standards

#### ISO 389-7:2005 (Ed 2, vers 3)

Acoustics – Reference zero for the calibration of audiometric equipment – Part 7: Reference threshold of hearing under free-field and diffuse-field listening conditions

## ISO 1999:2013 (Ed 3)

Acoustics – Estimation of noise-induced hearing loss

The two standards above have been circulated for systematic review until 2018-06-04. Some members proposed to revise/amend them.

WG 1 will review the voting results and discuss action to take for each standard at the Matsue meeting.

## Internal working tasks

#### ISO 389-8

Acoustics – Reference zero for the calibration of audiometric equipment – Part 8: Reference equivalent threshold sound pressure levels for pure tones and circumaural earphones (Revision of ISO 389-8:2004)

At the Copenhagen meeting, WG 1 recommended revising ISO 389-8:2004 since the circumaural headphones Sennheiser HDA 200, for which the current version of ISO 389-8 specifies reference hearing thresholds, are no longer available commercially. Instead, at least two new models of circumaural headphones have become available: Sennheiser HDA 300 and RadioEar DD 450.

In addition to that, WG 1 recommended merging ISO 389-8 with ISO 389-8 to have one single standard for circumaural earphones that specifies reference hearing thresholds both in the conventional and in the extended-high-frequency range.

TC 43 accepted these recommendations in principle, but pointed out that a NWIP is needed to initiate the revision work because the scope would be extended and the title would be changed accordingly.

After the Copenhagen meeting, Travis McColley, USA, confirmed that he is willing to take over the task as project leader.

WG 1 will discuss a 1WD and a draft NWIP to be presented by the project leader at the Matsue meeting.

#### ISO 389-6

Acoustics – Reference zero for the calibration of audiometric equipment – Part 6: Reference threshold of hearing for test signals of short duration (Revision of ISO 389-6:2007)

In accordance with technical development of test signals and revision of IEC 60645-3, WG 1 recommended considering a revision of this standard at the Florianopolis meeting in 2012.

After the Copenhagen meeting, Travis McColley, USA, confirmed that he is willing to become project leader. Another expert from USA might join in the project with the help of Laura Ann Wilber, USA.

WG 1 will continue the discussion at the Matsue meeting.

#### ISO 389-2

Acoustics – Reference zero for the calibration of audiometric equipment – Part 2: Reference equivalent threshold sound pressure levels for pure tones and insert earphones (Revision of ISO 389-2:1994)

At the Milan meeting in 2015, some experts of WG 1 proposed to revise the standard for moving the extended-high-frequency reference threshold specifications for insert earphones from ISO 389-5 to ISO 389-2.

After the Copenhagen meeting, Travis McColley, USA, confirmed that he is willing to become project leader.

WG 1 will continue the discussion at the Matsue meeting.

#### ISO 389-5

Acoustics – Reference zero for the calibration of audiometric equipment – Part 5: Reference equivalent threshold sound pressure levels for pure tones in the frequency range 8 kHz to 16 kHz (Merger into ISO 389-2:1994 and 389-8:2004)

At the Milan meeting in 2015, some experts of WG 1 proposed to revise the standard for combining it with ISO 389-8 and for specifying other models of circumaural earphones than that adopted in the present edition. WG 1 also agreed to move the extended-high-frequency reference specifications from ISO 389-5 to ISO 389-2 within the revision of the latter. Upon completion of the revisions of ISO 389-2 and ISO 389-8, ISO 389-5 could be withdrawn.

WG 1 will continue the discussion at the Matsue meeting.

## Model-specific bone-conduction reference thresholds

Thomas Fedtke, Germany, reported that a journal paper that showed needs for model-specific bone-conduction reference thresholds was published as given in doc. N553.

WG 1 will continue the discussion at the Matsue meeting if members are interested in this issue.

Kenji Kurakata, Convenor of WG 1

## WG 9 - Method for calculating loudness level

## 1. Meetings

Since the last plenary meeting of ISO/TC 43 (May, 2017), Copenhagen, Denmark), WG 9 has held no meeting. The next meeting will take place in connection with the forthcoming ISO/TC 43 plenary meeting on November 2018 in Matsue, Japan).

#### 2. Status of work

 ISO 532-1 "Acoustics – Methods for calculating loudness – Part 1: Zwicker method"

ISO/DIS 532-1 has been approved, edited and is now published.

 ISO 532-2 "Acoustics – Methods for calculating loudness – Part 2: Moore-Glasberg method"

ISO/DIS 532-2 has been approved, edited and is now published.

We have begun work on a preliminary CD 532-3 "Acoustics – Methods for calculating loudness – Moore-Glasberg-Schlittenlacher method for time varying sounds".

The Canadian Standards Association has requested that this be allowed as a new work item and it has been sent out for vote as a new work item to the member nations.

Laura Ann Wilber, Convenor of WG 9

## WG 10 "Hearing aid fitting management"

## 1. Background

In May 2016, NWIP 21388-1 has been approved and allocated to the new working group ISO/TC 43/WG 10 "Hearing aid fitting management" (doc. 43 N 1300).

## 2. Meetings

There have been 6 meetings since the WG 10 was established as below:

- 1) Vancover, Canada, 2016-09-28
- 2) Hannover, Germany, 2016-10-20
- 3) Lübeck, Germany, 2017-01-17~18
- 4) Copenhagen, Denmark, 2017-05-16~17
- 5) Atlanta, USA, 2017-09-14~15
- 6) Seoul, Korea, 2018-05-02~03

#### 3. Status of documents

## Active items

#### **ISO/DIS 21388**

## Acoustics - Hearing aid fitting management

This document is a result of vote for merging ISO 21388 part 1 and 2 (ISO TC 43 doc. N1350).

This document had been circulated as a 2<sup>nd</sup> CD voting for DIS registration between 2018-06-01 and 2018-07-27 and 2<sup>nd</sup> ISO/CD 21388 has been approved. The document is submitted for circulation to member body vote as a DIS. WG 10 will discuss and review the comments and future plans

Junghak Lee, Convenor of WG 10

## AITS FUNDED REPORT OF INTERNATIONAL/EUROPEAN MEETING

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Meeting of Committee: ISO/TC43/SC1

Date(s) of Meeting: 15<sup>th</sup> and 16<sup>th</sup> November 2018

Place of Meeting: Matsue, Japan.

(Town & Country)

Author of report: Phil Dunbavin

Other UK attendees: None.

Countries & number in delegations [e.g. DE(4)] France (3), USA (3), Denmark (2), Germany (5),

Japan (11), Canada (1), Sweden (2), Norway (1),

South Korea (1).

Additional major papers circulated at meeting

There were no additional papers

Items added to Agenda at meeting

There were no items added to the agenda.

List of discussed items

See the agenda at the end of this report.

Other comments/items

There were no other comments/items.

Date of Next Meeting: 8<sup>th</sup> to 12<sup>th</sup> of June 2020.

Proposed venue for next meeting: Paris, France.

#### Report from delegate

## 1. Opening of the meeting (14:00)

The meeting was opened.

## 2. Roll call of delegates

The roll call was taken.

## 3. Adoption of the agenda Doc. ISO/TC 43/SC 1 N 2373

The draft agenda was adopted.

## 4. Appointment of the drafting committee

A drafting committee was appointed.

## Report of the Secretariat Doc. ISO/TC 43/SC 1 N2374

5.1. Review of the status of work

The report was presented.

5.2. Report from the Advisory Panel meeting

The secretariat requested that Philip Dunbavin join the advisory panel. Mr Dunbavin accepted the appointment.

5.3. News from the ISO Central Secretariat

The ISO Directives were changed earlier in the year. The changes were all minor and have no implications for the UK.

6. Report on the activities of CEN/TC 211 – Acoustics Doc. ISO/TC 43/SC 1 N2368.

The report was presented.

- 7. Decision on reviews from 2018
  - 7.1. ISO 3095:2013 "Acoustics Railway applications Measurement of noise emitted by railbound vehicles"

Doc. ISO/TC 43/SC 1 N 2322

It is proposed this will be revised with a CEN lead. Work is well on.

7.2. ISO 3381:2005 "Railway applications — Acoustics — Measurement of noise inside railbound vehicles" Doc. ISO/TC 43/SC 1 N 2323

It is proposed that this will be revised with a CEN lead. Work is well on.

7.3. ISO 4871:1996 "Acoustics — Declaration and verification of noise emission values of machinery and equipment"

Doc. ISO/TC 43/SC 1 N 2324

This standard was confirmed.

7.4. ISO 5128:1980 "Acoustics — Measurement of noise inside motor vehicles" Doc. ISO/TC 43/SC 1 N 2325

It is proposed that this will be revised on a 48 month track with the same scope.

7.5. ISO 7235:2003 "Acoustics — Laboratory measurement procedures for ducted silencers and air-terminal units — Insertion loss, flow noise and total pressure loss"

Doc. ISO/TC 43/SC 1 N 2327

It is proposed that this is confirmed and that a new work item is planned to revise it.

7.6. ISO 9614-1:1993 "Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 1: Measurement at discrete points"

Doc. ISO/TC 43/SC 1 N 2328

It was proposed that this standard is confirmed.

7.7. ISO 9614-2:1996 "Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 2: Measurement by scanning"

Doc. ISO/TC 43/SC 1 N 2329

It was proposed that this standard is confirmed.

7.8. ISO 9614-3:2002 "Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 3: Precision method for measurement by scanning" Doc. ISO/TC 43/SC 1 N 2330

It was proposed that this standard is confirmed.

7.9. ISO 9645:1990 "Acoustics — Measurement of noise emitted by two-wheeled mopeds in motion — Engineering method

Doc. ISO/TC 43/SC 1 N 2339

It was proposed that this standard is confirmed.

7.10. ISO 10843:1997 "Acoustics — Methods for the description and physical measurement of single impulses or series of impulses" Doc. ISO/TC 43/SC 1 N 2331.

It was proposed that this standard is confirmed.

7.11. ISO 10847:1997 "Acoustics — In-situ determination of insertion loss of outdoor noise barriers of all types"

Doc. ISO/TC 43/SC 1 N 2333

It was proposed that this standard is confirmed.

7.12. ISO 11819-1:1997 "Acoustics — Measurement of the influence of road surfaces on traffic noise — Part 1: Statistical Pass-By method

Doc. ISO/TC 43/SC 1 N 2334

It was proposed that this is revised on a 36 month track a largely unchanged scope.

7.13. ISO 11821:1997 "Acoustics — Measurement of the in situ sound attenuation of a removable screen" Doc. ISO/TC 43/SC 1 N 2335

It was proposed that this is confirmed.

7.14. ISO 13472-2:2010 "Acoustics — Measurement of sound absorption properties of road surfaces in situ Part 2: Spot method for reflective surfaces"

Doc. ISO/TC 43/SC 1 N 2336

It was proposed that a decision on this be deferred and a written ballot on this implemented within a few weeks.

7.15. ISO 13473-2:2002 "Characterization of pavement texture by use of surface profiles — Part 2: Terminology and basic requirements related to pavement texture profile analysis"

Doc. ISO/TC 43/SC 1 N 2337

It was proposed that this is confirmed.

7.16. ISO 13473-3:2002 "Characterization of pavement texture by use of surface profiles — Part 3: Specification and classification of profilometers"

Doc. ISO/TC 43/SC 1 N 2340

It was proposed that this is confirmed.

7.17. ISO 15665:2003 "Acoustics — Acoustic insulation for pipes, valves and flanges" Doc. ISO/TC 43/SC 1 N 2338

It is proposed that this is revised in a new working group with an unchanged scope, 48 month development time under the project leader/convenor of Richard Hamley from the UK.

- Internal Guides of ISO/TC 43/SC 1
  - 8.1. Guide 1 on drafting instrumentation requirements ISO/TC 43/SC 1 N 2292

The latest version, version 3, was published in January 2018.

8.2. Guide 2 on treatment of measurement uncertainty in standards prepared by ISO/TC 43 & SC 1 ISO/TC 43/SC 1 N 2300

Edition 2 was published in April 2018.

9. Reports from working groups (including reappointment of convenors) Doc. ISO/TC 43/SC 1 N2369.

The reports are attached at the end of this report after the draft agenda. Due to the length of the agenda for this meeting the reports were taken as read with only comments that were made verbally on any additional significant items that have occurred since submitting the written report are noted here.

- 9.1. WG 17 Methods of measurement of sound attenuation of hearing protectors
- 9.2. WG 23 Measurement of noise from information technology, business and tele-communications Equipment
- 9.3. WG 27 Joint TC 43/SC 1 TC 22 WG: Effect of temperature on tyre/road noise testing

- 9.4. WG 28 Basic machinery noise emission standards
- 9.5. WG 33 Measuring methods for comparing traffic noise on different road surfaces
- 9.6. WG 39 Characterization of pavement texture using surface profiles
- 9.7. WG 42 Joint TC 43/SC 1 TC 22 WG: Measurement of noise emission (external) from road vehicles
- 9.8. WG 45 Description and measurement of environmental noise (Revision of ISO 1996 series)
- 9.9. WG 51 Noise from shooting ranges (Jointly with CEN/TC 211)
- 9.10. WG 54 Perceptual assessment of soundscape quality.

The working group met in Matseu and all of the 58 comments on Part 3 were resolved and the draft will be modified accordingly by the project manager. In response to the comment number 19 from the United States an Annex covering the concept of "Triangulation" is being prepared.

The timescale going forward is as follows:

To have the revised draft to the ISO Secretariat by the second week of February 2019. This will then be issued for international voting to become a CD on the 1st of March 2019. The comments will be collated by the secretariat in May and they will be discussed at the next meeting in June.

- 9.11. WG 56 -Quality assurance of noise calculation methods implemented in software
- 9.12. WG 57 Joint ISO/TC 43/SC 1 ISO/TC 22 WG: In-situ measurements of blocked forces
- 9.13. WG 58 Revision of ISO 5135 Sound power levels of air-terminal devices
- 9.14. WG 59 Revision of ISO 11691 Insertion loss of ducted silencers (Survey method)
- 9.15. WG 60 Joint ISO/TC 43/SC 1 ISO/TC 22 WG: Method for transposition of dynamic forces generated by an active component from a test bench to a vehicle
- 9.16. WG 61 Revision of ISO 9613-2 Attenuation of sound during propagation outdoors
- 9.17. WG 62 Revision of ISO/TS 15666 Assessment of noise annoyance by means of social and socio-acoustic surveys

The secretariat pointed out that the CD should be submitted for voting by the middle of 2019 but no later than October 2019 in order to stay on track. The CD ballot should include the decision to take this standard to a full ISO.

- 9.18. WG 63 -Revision of ISO 2922 Measurement of airborne sound emitted by vessels on inland waterways and harbours
- 9.19. WG 64 Revision of ISO 7574 (all parts) Statistical methods for determining and verifying stated noise emission values of machinery and equipment.
- 9.20. WG 65 Acoustic quality of open office spaces
- 10. Items for future work

10.1. Proposal from Denmark: ISO/PAS 1996-3 "Acoustics — Description, measurement and assessment of environmental noise — Part 3: Objective method for the measurement of prominence of impulsive sounds and for adjustment of *L*Aeq"

Doc. ISO/TC 43/SC 1 N 2360

10.2. Proposal from France: Revision of ISO 9612 "Acoustics – Determination of occupational noise exposure – Engineering method"

Doc. ISO/TC 43/SC 1 N 2370

The meeting agreed to wait until the systematic review on this work and put the planned minor revision on hold.

10.3. Proposal from United Kingdom: "Characterisation of non-acoustic factors for acoustic, soundscape quality and annoyance assessments"

Doc. ISO/TC 43/SC 1 N 2371

The convenor of WG62 will write formally to Hans Kornprobst for an international ballot for a NWI as per N2371 to give the delegates time to consult their mirror committee. We will also seek liaison with the experts in WG45 by inviting them to join WG62 at the appropriate time.

10.4 Proposal from ISO/TC 43/SC 1 WG 33: Amendment to ISO/TS 11819-3 "Acoustics — Measurement of the influence of road surfaces on traffic noise — Part 3: Reference tyres"

Doc. ISO/TC 43/SC 1 N 2372

It was proposed that this should become a NWIP.

11. Disbanding of working groups

There were no working groups to be disbanded.

12. Work items on which no progress is being made – Status and action to be taken

There was nothing more to be considered.

13. Review of preliminary work items

All the preliminary work items have already been considered.

14. Requirements concerning a subsequent meeting

8<sup>th</sup> to 12<sup>th</sup> of June 2020, in Paris, France.

15. Any other business

ISO is conducting a survey to look at how to improve meetings and the work of the committees.

16. Approval of resolutions

A large number of resolutions were considered and the outcome of these will be circulated by ISO later. In essence the resolutions cover everything that was discussed at the plenary meeting.

17. Closing of the meeting

#### ISO/TC 43/SC 1 N 2373

# 1st REVISED DRAFT AGENDA/PROJET D'ORDRE DU JOUR (supersedes doc. ISO/TC 43/SC 1 N 2355)

- 8. Opening of the meeting (14:00)
- 9. Roll call of delegates
- Adoption of the agenda Doc. ISO/TC 43/SC 1 N 2355
- 11. Appointment of the drafting committee
- 12. Report of the Secretariat Doc. ISO/TC 43/SC 1 N\*
  - 5.1. Review of the status of work
  - 5.2. Report from the Advisory Panel meeting
  - 5.3. News from the ISO Central Secretariat
- 13. Report on the activities of CEN/TC 211 Acoustics Doc. ISO/TC 43/SC 1 N\*
- 14. Decision on reviews from 2018
  - 7.1. ISO 3095:2013 "Acoustics Railway applications Measurement of noise emitted by railbound vehicles"

Doc. ISO/TC 43/SC 1 N 2322

- 7.2. ISO 3381:2005 "Railway applications Acoustics Measurement of noise inside railbound vehicles" Doc. ISO/TC 43/SC 1 N 2323
- 7.3. ISO 4871:1996 "Acoustics Declaration and verification of noise emission values of machinery and equipment"

Doc. ISO/TC 43/SC 1 N 2324

- 7.4. ISO 5128:1980 "Acoustics Measurement of noise inside motor vehicles" Doc. ISO/TC 43/SC 1 N 2325
- 7.5. ISO 7235:2003 "Acoustics Laboratory measurement procedures for ducted silencers and air-terminal units — Insertion loss, flow noise and total pressure loss" Doc. ISO/TC 43/SC 1 N 2327
- 7.6. ISO 9614-1:1993 "Acoustics Determination of sound power levels of noise sources using sound intensity Part 1: Measurement at discrete points" Doc. ISO/TC 43/SC 1 N 2328
- 7.7. ISO 9614-2:1996 "Acoustics Determination of sound power levels of noise sources using sound intensity Part 2: Measurement by scanning" Doc. ISO/TC 43/SC 1 N 2329
- 7.8. ISO 9614-3:2002 "Acoustics Determination of sound power levels of noise sources using sound intensity Part 3: Precision method for measurement by scanning" Doc. ISO/TC 43/SC 1 N 2330
- 7.9. ISO 9645:1990 "Acoustics Measurement of noise emitted by two-wheeled mopeds in motion Engineering method

Doc. ISO/TC 43/SC 1 N 2339

7.10. ISO 10843:1997 "Acoustics — Methods for the description and physical measurement of single impulses or series of impulses"

Doc. ISO/TC 43/SC 1 N 2331

7.11. ISO 10847:1997 "Acoustics — In-situ determination of insertion loss of outdoor noise barriers of all types"

Doc. ISO/TC 43/SC 1 N 2333

- 7.12. ISO 11819-1:1997 "Acoustics Measurement of the influence of road surfaces on traffic noise Part 1: Statistical Pass-By method
  - Doc. ISO/TC 43/SC 1 N 2334
- 7.13. ISO 11821:1997 "Acoustics Measurement of the in situ sound attenuation of a removable screen" Doc. ISO/TC 43/SC 1 N 2335
- 7.14. ISO 13472-2:2010 "Acoustics Measurement of sound absorption properties of road surfaces in situ Part 2: Spot method for reflective surfaces" Doc. ISO/TC 43/SC 1 N 2336
- 7.15. ISO 13473-2:2002 "Characterization of pavement texture by use of surface profiles Part 2: Terminology and basic requirements related to pavement texture profile analysis" Doc. ISO/TC 43/SC 1 N 2337
- 7.16. ISO 13473-3:2002 "Characterization of pavement texture by use of surface profiles Part 3: Specification and classification of profilometers" Doc. ISO/TC 43/SC 1 N 2340
- 7.17. ISO 15665:2003 "Acoustics Acoustic insulation for pipes, valves and flanges" Doc. ISO/TC 43/SC 1 N 2338
  - 8 Internal Guides of ISO/TC 43/SC 1
  - 8.1. Guide 1 on drafting instrumentation requirements ISO/TC 43/SC 1 N 2292
  - 8.2. Guide 2 on treatment of measurement uncertainty in standards prepared by ISO/TC 43 & SC 1 ISO/TC 43/SC 1 N 2300
  - 9 Reports from working groups (including reappointment of convenors) Doc. ISO/TC 43/SC 1 N\*
  - 9.1. WG 17 Methods of measurement of sound attenuation of hearing protectors
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  - 9.4. WG 28 Basic machinery noise emission standards
  - 9.5. WG 33 Measuring methods for comparing traffic noise on different road surfaces
  - 9.6. WG 39 Characterization of pavement texture using surface profiles
- 9.7. WG 42 Joint TC 43/SC 1 TC 22 WG: Measurement of noise emission (external) from road vehicles
  - 9.8. WG 45 Description and measurement of environmental noise (Revision of ISO 1996 series)

- 9.9. WG 51 Noise from shooting ranges (Jointly with CEN/TC 211)
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- 9.15. WG 60 Joint ISO/TC 43/SC 1 ISO/TC 22 WG: Method for transposition of dynamic forces generated by an active component from a test bench to a vehicle
- 9.16. WG 61 Revision of ISO 9613-2 Attenuation of sound during propagation outdoors
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- 9.18. WG 63 –Revision of ISO 2922 Measurement of airborne sound emitted by vessels on inland waterways and harbours
- 9.19. WG 64 Revision of ISO 7574 (all parts) Statistical methods for determining and verifying stated noise emission values of machinery and equipment
- 9.20. WG 65 Acoustic quality of open office spaces
  - 10 Items for future work
    - 10.1. Proposal from Denmark: ISO/PAS 1996-3 "Acoustics Description, measurement and assessment of environmental noise Part 3: Objective method for the measurement of prominence of impulsive sounds and for adjustment of *L*Aeq" Doc. ISO/TC 43/SC 1 N 2360
    - 10.2. Proposal from France: Revision of ISO 9612 "Acoustics Determination of occupational noise exposure Engineering method"

      Doc. ISO/TC 43/SC 1 N 2370
    - 10.3. Proposal from United Kingdom: "Characterisation of non-acoustic factors for acoustic, soundscape quality and annoyance assessments"

      Doc. ISO/TC 43/SC 1 N 2371
    - 10.4. Proposal from ISO/TC 43/SC 1 WG 33: Amendment to ISO/TS 11819-3 "Acoustics Measurement of the influence of road surfaces on traffic noise Part 3: Reference tyres" Doc. ISO/TC 43/SC 1 N 2372
  - 11 Disbanding of working groups
  - 12 Work items on which no progress is being made Status and action to be taken
  - 13 Review of preliminary work items
  - 14 Requirements concerning a subsequent meeting
  - 15 Any other business

- 16 Approval of resolutions
- 17 Closing of the meeting

# REPORTS FROM WORKING GROUPS UNDER ISO/TC 43/SC 1 "NOISE"

to its 33<sup>rd</sup> meeting, 2018-11-15/16, Matsue, Japan

## WG 17 – Methods of measurement of sound attenuation of hearing protectors

#### Meetings:

Since the last plenary meeting of ISO/TC 43/SC 1 (2017-05-18/19, Lyngby, Denmark), WG 17 has held a webex-meeting in January 2018. The next meeting will take place in connection with the forthcoming ISO/TC 43/SC 1 plenary meeting on 2018-11-14 (Matsue, Japan).

#### Status of work:

(1) ISO/FDIS 4869-1 // FprEN ISO 4869-1 "Acoustics — Hearing protectors — Part 1: Subjective method for the measurement of sound attenuation" (Revision of ISO 4869-1:1990)

ISO/TC 43/SC 1/WG 17 decided during its meeting in Copenhagen on 2017-05-17 subsequently final checking to ask the secretariat ISO/TC 43/SC 1 to submit ISO 4869-1 to ISO/CS for FDIS ballot. For that final check the document ISO/TC 43/SC 1/WG 17 N 306 was circulated on 2017-07-11. ISO/FDIS 4869-1 was distributed by ISO for voting on 2018-01-25. With document ISO/TC 43/SC 1 N 2301 the result of voting was circulated: 16 P-Members out of 16 voted in favour = 100 %.

The document is currently in finalisation of publication by ISO/CS after final discussion with CCMC (CEN). CEN had decided to delete the Annex ZA as the document, standards dealing with test methods won't be offered to be cited in Official Journal (OJEU).

(2) ISO/DIS 4869-2 // prEN ISO 4869-2 "Acoustics — Hearing protectors — Part 2: Estimation of effective A-weighted sound pressure levels when hearing protectors are worn" (Revision of ISO 4869 2:1994)

ISO/TC 43/SC 1/WG 17 decided during its meeting in Copenhagen on 2017-05-17 subsequently final checking to ask the secretariat ISO/TC 43/SC 1 to submit ISO 4869-2 to ISO/CS for FDIS ballot. For that final check the document ISO/TC 43/SC 1/WG 17 N 307 was circulated on 2017-07-11. ISO/FDIS 4869-2 was distributed by ISO for voting on 2018-01-25. With document ISO/TC 43/SC 1 N 2302 the result of voting was circulated: 15 P-Members out of 15 voted in favour = 100 %.

The document is currently in finalisation of publication by ISO/CS after final discussion with CCMC (CEN). CEN had decided to delete the Annex ZA as the document, standards dealing with test methods won't be offered to be cited in Official Journal (OJEU).

(3) ISO/DIS 4869-6 "Acoustics — Hearing protectors — Part 6: Determination of sound attenuation of active noise reduction ear-muffs"

After circulation of a revised document in WG 17 a web-meeting was launched in January 2018 to address open issues. Document ISO/TC 43/SC 1/WG 17 N 325 was circulated on 2018-08-18 for final – editorial only – check in WG 17.

The document is currently in finalisation for balloting as ISO/FDIS.

(4) ISO/DIS 4869-3 " Acoustics — Hearing protectors — Part 3: Measurement of insertion loss of ear-muff type protectors using an acoustic test fixture"

The systematic review in 2017 showed the need for revision, but works were held back finalisation of running projects (ISO 4869-1/-2/-6).

WG 17 is now in discussion of the development of the new revision.

# (5) Revision of ISO/TS 4869-5 "Acoustics — Hearing protectors — Part 5: Method for estimation of noise reduction using fitting by inexperienced test subjects"

The systematic review in 2017 showed the need for revision, but works were held back finalisation of running projects (ISO 4869-1/-2/-6).

WG 17 is now in discussion of the development of the new revision.

## (6) Possible new standard

WG 17 discussed a new standard based on the ANSI S12.71 "Performance criteria for systems that estimate the attenuation of passive hearing protectors for individual users" already in 2017. Since the document was published recently (July 2018) the exchange about such document will be continued in the meeting in Matsue, Japan.

Martin Liedtke, Convenor of WG 17

# WG 23 - Measurement of noise from information technology, business and telecommunications equipment

#### Meetings:

#### Most recent meeting(s)

WG 23 has, for the last several years, performed its work in close cooperation with ICWG<sup>1)</sup> One physical meeting, as a part of ICWG meeting, was held since the last plenary meeting of TC 43/SC 1.

- Chicago, IL, USA, August 29-30, 2018 (immediately after InterNoise2018)

#### Planned meeting(s)

The next physical meetings of WG23 will be held, in conjunction with the ICWG<sup>1)</sup> on Noise from ITTE, or other committees. There is 1 scheduled meeting.

 In conjunction with NoiseCon2019, August 28 - 29, 2019 (Wednesday afternoon and all day Thursday) in San Diego, California, USA

#### Status of work:

#### ISO 7779:2010

"Acoustics — Measurement of airborne noise emitted by information technology and telecommunications equipment"

Under revision. ISO/FDIS 7779 was circulated August 30 up to October 25, 2018.

#### ISO 9296

"Acoustics — Declared Noise emission values of computer and business equipment"

ISO 9296:2017 2<sup>nd</sup> edition published in July 2017.

## ISO 10302 series

"Acoustics — Measurement of airborne noise emitted and structure-borne vibration induced by small air-moving devices — "

Part 1: Airborne noise measurement – 1st edition published on 2011-01-15

 Based on the recent publication of industry counterpart, ECMA-275-1:2017, the revision project was proposed by JISC, and approved in 1Q of 2018. And, the circulated draft in the NP process was approved as DIS. The next target is 2nd DIS circulation as early as possible in 2019.

Part 2: Structure-borne vibration measurement – 1st edition published on 2011-06-15

Ikuo Kimizuka, Convenor of WG 23

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ICWG (InterCommittee Working Group on Noise from Information Technology and Telecommunications Equipment) consisting of following five constituent committees:
 (1) ISO/TC 43/SC 1/WG 23, (2) INCE/TC, IT Equipment, (3) ANSI ASC12, WG 3 Measurement of noise from ITTE, (4) Ecma TC 26 Acoustics, (5) ITI TC 6, Product Acoustics

## WG 27 - Joint TC 43/SC 1-TC 22 WG; Effect of temperature on tyre/road noise testing

#### Meetings:

Since the previous Status Report (April 2017), two meetings of WG 27 have been held: February 2018 in Madrid, Spain, and June 2018 in Stockholm, Sweden.

#### Status of work:

After the first part of 13471-1, dealing with temperature corrections for the CPX method was published in March 2017, work has shifted to produce a first WD for 13471 Part 2 for the temperature effects on measurements with the SPB method (ISO 11819-1). In the first two meetings dealing with this, relevant data have been compiled and reviewed and the WG has started to produce a draft.

It is worth noting that the procedures and text of the draft need to be consistent with related parts in ISO 11819-1 (the SPB measurement method) and to ISO/TS 13471-1, and significant work is devoted to achieving this.

It is also worth noting that as the SPB method essentially measures tyre/road noise, the 13471-2 will have a bearing also on some standards in the ISO 362 series. Therefore, WG 27 attempts to find data especially relevant to ISO 10844 surfaces and similar pavements.

Tentatively, the next meeting is planned to take place in Brussels in January 2019.

An NWIP along with a CD for TS 13471-2 can be submitted to SC 1 in 2019.

In 2020, a new Convenor should be appointed.

Ulf Sandberg, Convenor of WG 27 Swedish National Road and Transport Research Institute (VTI)

## WG 28 - Basic machinery noise emission standards

#### Meetings

Since the last plenary meeting of ISO/TC 43/SC 1 on 2017-05-15/19 in Copenhagen/Lyngby, Denmark, WG 28 held a meeting on 2018-03-13/14 in Berlin, Germany. The next WG28 meeting will take place in connection with the forthcoming ISO/TC 43/SC 1 plenary meeting on 2018-11-12/13 in Matsue, Japan.

#### **Finished projects**

 ISO 11200:2014/Amd 1:2018 "Acoustics — Noise emitted by machinery and equipment — Guidelines for the use of basic standards for the determination of emission sound pressure levels at a work station and at other specified positions"

A Draft Amendment was prepared by WG 28 to correct mistakes in two figures. It was circulated for ballot by ISO/TC 43/SC 1 on 2017-01-20 with balloting ending on 2017-04-13. WG 28 discussed ballot results in Copenhagen May 2017 meeting. The final text was forwarded to ISO/CS in January 2018 for checking before publication.

The Amendment 1 was published 2018-06-07.

#### **Active work items**

2. **ISO 3740** "Acoustics — Noise emitted by machinery and equipment — Guidelines for the use of basic standards for the determination of sound power levels"

Revision of ISO 3740:2000 decided by ISO/TC 43/SC 1 on 2014-05-23 in Berlin.

At the WG 28 meeting in Milan on 2015-08-14/15, the CD and comments received were discussed. The ISO TC 43/SC 1 ballot on ISO/CD 3740 was approved with 17 positive votes and 0 negative votes.

Mr. Kurtz prepared a draft ISO/DIS that was discussed the WG 28 meeting in Hamburg. After the Hamburg meeting, Mr. Kurtz prepared a revised ISO/DIS and sent to WG 28 for comments by 2017-01-04.

The voting of ISO/DIS 3740 ended on 2017-10-02 with 17 P-Members in favour, none against the document. Observations and changes to the document were prepared by Mr. Kurtz.

Mr. Kurtz resigns work in WG 28 in early 2018, his successor is Mr. Heisterkamp.

With final changes, the document was sent for registration of FDIS-voting, which started 2018-09-

{Limit dates for registration by ISO/CS: 2017-11-31 [FDIS]; 2018-05-31 [IS]}

3. **ISO 6926:2016** "Acoustics — Requirements for the performance and calibration of reference sound sources used for the determination of sound power levels"

ISO 6926:2016 received a request for revision/amendment from ISO/CASCO regarding the change of some text phrases regarding "accredited" laboratories. In the Copenhagen meeting was agreed to develop an amendment, project leader is Mr. Jonasson.

In February 2018 the draft of the manuscript was forwarded to ISO/CASCO for checking some additional phrases in the document, which consist similar content to be included in the amendment. Comments are currently being reviewed by the project leader.

{Limit dates for registration by ISO/CS: 2018-06-12 [DIS]; 2019-06-12 [IS]}

4. **ISO 11202** "Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections"

WG 28 decided at its Milan meeting to revise ISO 11202, and Mr. Jonasson agreed to be project leader.

Several documents were distributed to and commented by experts since last the meetings. The draft, prepared by Mr. Jonasson and Mr. Keith were discussed in Berlin meeting 2018, final changes will be handled in Matsue meeting.

{Limit dates for registration by ISO/CS: 2018-09-22 [DIS]; 2019-09-22 [IS]}

5. **ISO 11203:1995/DAmd 1** "Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level — Amendment 1"

The development of Amendment 1 to ISO 11203:1995 was agreed by WG 28 in Copenhagen, May 2017. The project leader, Mr. Kurtz, provided the draft in October 2017, which was circulated in the working group until 2017-11-26. As there were no comments received, the document was registered for DIS 2018-02-22.

Mr. Heisterkamp (the new project leader) prepared the observation on comments and final discussion will be held in the Matsue meeting.

#### **Preliminary work items**

 ISO 3744 "Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane"

ISO 26101-2 "Determination of K2 standard"

A new standard on "Uncertainty standard for sound power level"

In the meeting in Copenhagen it was agreed these three projects need to be developed and published in a parallel process since the topics are closely related.

Project-leader for revision of ISO 3744 will be Mr. Schmitt; the project leader for the new ISO 26101-2 will be Mr. Heisterkamp; and project leader for the development of the new uncertainty standard will be Mr. Wittstock. A project team meeting was held in Chicago in September 2018, and draft documents will be discussed during the Matsue meeting.

An E-guide for ISO 3744 is being developed with Mr. Carniel as the project leader.

7. **ISO 8297** "Acoustics — Determination of sound power levels of multisource industrial plants for evaluation if sound pressure levels in the environment — Engineering method"

In May 2017 working group agreed to develop an amendment for ISO 8297. The project leader Mr. Hellweg provided observations and a document for discussion in meeting in Berlin 2018. A draft amendment will be circulated and discussed at the Matsue meeting.

8. **ISO 12001** "Acoustics — Noise emitted by machinery and equipment — Rules for the drafting and presentation of a noise test code"

WG 28 checked a draft document at its Hamburg meeting, and changes were made to clause 3 (definitions). WG 28 decided to circulate the updated version within the WG 28 (comparison ISO 12001:1996 and current version). WG 28 will ask the ISO TC 43/SC 1 secretariat for changing development track from minor revision to revision.

WG 28 requests that the Secretariat of ISO/TC 43/SC 1 start a ballot to skip CD-stage and initiating the ballot for DIS. Project leader will be Mr. Hellweg. A draft document will be discussed at the Matsue meeting.

{Limit dates for registration by ISO/CS: 2018-09-22 [IS] regarding minor revision resolution in Milan}

Robert Hellweg, Convenor of WG 28 Kay S. Voigt, Secretary of WG 28

## WG 33 - Measuring method for comparing traffic noise on different road surfaces

#### Meetings:

Since the previous Status Report (April 2017), four meetings of WG 33 have been held: August-September 2017 in Hong Kong, November 2017 in Brussels, Belgium, February 2018 in Madrid, Spain, and June 2018 in Stockholm, Sweden. The next meeting is planned to take place in Matsue, Japan, in November 2018 in conjunction with the ISO week there.

#### Status of work:

The group has worked with these tasks in this period:

- Revising the ISO 11819-1 (the SPB method)
- Reviewing a constant in the TS 11819-3 (reference tyres)
- Related to both ISO 11819-2 (CPX method) and 11819-3, a Dutch round robin test of CPX equipment has been studied.

#### Revision of ISO 11819-1 (the SPB method) and PAS 11819-4 (backing board)

After the 2nd part of 11819, dealing with the CPX method was published in April 2017, work has shifted to produce a first WD for revision of 11819-1 for the SPB method. In the first two meetings dealing with this, relevant data have been compiled and reviewed and the WG has started to produce a draft. This draft will include an Annex which contains the present PAS 11819-4 (Backing board), and it will in some ways make it much easier to collect data for trucks and buses than the present method. Consequently, the new version will be much easier to apply than the old one; albeit that in general traffic volumes in society have increased so much that it may balance out much of the improvements.

## **Evaluating the newly published ISO 11819-2 (the CPX method)**

The standard was published at the end of March 2017; simultaneously with ISO/TS 11819-3 and ISO/TS 13471-1 (on temperature correction). Just after this, a round robin test (RRT) was held in the Netherlands comparing 10 CPX equipment. The results were evaluated by WG 33 with great interest and it was very satisfying to conclude that results showed that both 11819-2 and 11819-3 worked as intended, and maybe even a little better than expected. A simultaneous French RRT showed less positive results, although the problems were related to not fully meeting the standard requirements.

#### **Development of TS 11819-3 (reference tyres)**

A Swiss member of the WG had made a through analyses of the latest results regarding the correction factors used for normalising noise levels to a reference rubber hardness value for tyres P1 and H1; also looking at the temperature corrections. This work was made in cooperation with Gdansk University of Technology. The results showed that the corrections were confirmed, except for the hardness correction for the P1 tyre (the 16" SRTT). Therefore, WG 33 decided to request an amendment in 11819-3 for (only) this particular constant. This will be an issue at the Matsue SC 1 meeting.

#### Revision of ISO 13472-1:2002 on sound absorption

Dr van Blokland has a special task to update 13472-1, under WG 33 to avoid starting up the old WG 38, and this work is near completion.

#### Other issues

The WG has lost two of its most senior and active members in the summer of 2018, which is regretted since they have done extensive work for WG 33. This is Mr Morgan of the UK who has a new position which does not deal with our subject, and Dr van Blokland of the Netherlands, who is retiring.

Ulf Sandberg, Convener of WG 33 Swedish National Road and Transport Research Institute (VTI)

## WG 39 - Characterization of pavement texture using surface profiles

#### Meetings:

Since the previous Status Report (April 2017), no less than five WG 39 meetings have been held: September 2017 in London, November 2017 in Copenhagen, January 2018 in Arlington (VA/USA), April 2018 in Brussels, and July 2018 in Celle (Germany). The reason for this high activity was the urgency to finish the revision of the MPD standard and the complexity of this.

During this period WG 39 has worked with these items:

- Revision of ISO 13473-1 (Part 1 Mean Profile Depth)
- Developing a PAS 13473-6 on verification of laser profilometers

Due to the urgency and complexity of revising 13473-1, the other work items (Parts 2, 3, and 5 of ISO 13473) have not been dealt with.

#### Revision of 13473-1 (Part 1: Mean Profile Depth - MPD)

A layout for a DIS was submitted by WG 39 to the SC 1 Secretariat in February 2017, but due to an editorial review and simultaneous ballot with CEN/TC 227/WG 5, the ballot was not published until October 2017. Again, the votes were in favour of the DIS (18 positive out of 19) but comments were extensive and required a couple of meetings to respond to and in many cases to satisfy them. A layout for FDIS was submitted by WG 33 in April 2018. But a new complication appeared, as the Japanese member pointed out some unclear things in the filtering procedures. This required a new review of the filtering procedures, resulting in a revised text and table with new filter constants. Simultaneously, the ISO Editor reviewed the document in detail, which was checked by the Project Leader, and which led to some compromises. The final FDIS was submitted for ballot a few days before this report.

## Production of PAS 13473-6 (Part 6: Verification procedure for laser profilometers)

WG 39 resumed work on ISO/PAS 13473-6 in February 2017 and has worked with this item when the revision of 13473-1 did not require the full time. The work is now not far from completion and a first WD and NWIP will be possible to produce in 2019.

## **New Convenor**

Before the plenary meeting in 2020, a new Convenor should be appointed.

Ulf Sandberg, Convenor of WG 39 Swedish National Road and Transport Research Institute (VTI)

# WG 42 – Joint TC 43/SC 1-TC 22 WG; Measurement of noise emission (external) from road vehicles

#### Status of work:

WG 42 has made significant progress on development of a number of standards assigned to it. As a joint workgroup with TC 22, WG 42 has had significant and positive input from TC 22 affiliated organizations (BNA, SAE and JSAE). ISO and WG 42 have been represented by the ISO Central Secretariat and WG 42 convener in United Nations Economic Commission for Europe (UN ECE) discussions relating to the use of ISO standards developed by WG 42 in global road vehicle noise regulations. A summary of the progress and status of WG 42 work on ISO standards is given below.

#### ISO 362-1, 3 – Mr. Douglas Moore, Mr. Ulrich Messer, Project Leader

ISO 362-3 was published in 2016 as the indoor testing companion document to ISO 362-1. ISO proposed incorporation of ISO 362-3 into United Nations R51.03 vehicle noise emission testing regulation and this was accepted by GRB in the January 2018 session and by WP.29 at the June 2018 session. The project group continues to gather lessons learned on the use of ISO 362-3 and will propose updates to ISO 362-3 as warranted.

Continuing consultation and review will occur with regulatory authorities on implementing ISO 362-3 into applicable regulations.

ISO 362-1 is presently being updated and a DIS draft is expected for the WG 42 meeting during the November 2018 meeting in Japan.

ISO continues to be closely involved in the UN ECE discussions on Regulations 41 (motorcycles) and Regulation 51 (passenger vehicles and heavy commercial vehicles), WG 42 has worked in close cooperation with UN ECE to develop the revised ISO 362-1, -2 standards. The WG 42 convener has also been involved with regulatory authorities from Canada, China, Brazil, Korea, and India relating to the use of ISO 362-1 in revisions to national regulations for motor vehicle noise emissions.

## ISO 10844 - Mr. Jean-Dominique Perrot, Project Leader

WG 42 continues to evaluate ISO 10844 in light of practical experience, specifically on construction tolerances, durability, and stability of performance over time. WG 42 expects to revise ISO 10844 as part of the 3-year review of 10844:2014

ISO 10844 is used as the specified test surface for UN ECE regulations 9, 41, 51, 63 and 117 (tires) as well as the regulations of Japan, Canada, Korea, China, the European Union, and other countries. In October 2016, UN ECE specified ISO 10844 as the reference surface to UN regulation R138 on minimum sound emissions. In December 2016, the US national Highway Safety Administration (NHTSA) specified ISO 10844 as the test surface in FMVSS 141 minimum sound regulation.

In addition, ISO 10844 is the specified test surface in the Society of Automotive Engineers (SAE) test procedures for exterior vehicle noise J1470, J2805 and J2889-1.

## ISO 5130 - Mr. Truls Berge, Project Leader

ISO 5130 has been approved at the DIS stage for updates to measurement locations. WG 42 has reviewed the DIS comments and will assist the Secretariat in preparation of the FDIS.

## ISO 16254 - Mr. Douglas Moore, Project Leader

ISO 16254 has been published and is the technical basis for UN regulation R138, issued in October 2016.

ISO has commented as part of the Global Technical Regulation (GTR) process that the implementation of FMVSS 141 is technically flawed; the test procedures deviate significantly from SAE J2889-1 and ISO 16254. The fundamental deviation has to do with the specification in FMVSS 141 to base the measurement acceptance and correction criteria on the minimum level of the background noise, rather than the maximum level of the background noise. WG 42 has also gathered practical lessons learned in the use of 16254 and will bring forward updates as they are warranted.

A major issue in the development of ISO 16254 and SAE J2889-1 has been the issue if intellectual property between the two standards organizations. There is significant confusion and uncertainty on how to handle this aspect of standards development. From the perspective of the developers and users, the need is clear – there needs to be technically equivalent (mirrored) standards available from both SAE and ISO. This is due to the fact that some regulatory authorities will cite ISO and some will cite SAE. Also, in practical terms, the SAE and ISO standards development has happened simultaneously, with the same contributing experts, in very close cooperation. Therefore, it is impossible to disentangle the standards to say which organization owns which intellectual property. It is WG 42's understanding that this is an issue which is broad in nature between ISO and SAE, as well as between ISO and other organizations. WG 42 sees the immediate need to have a mechanism for jointly developed standards.

WG 42 would like to thank Mr. Moore and the ISO 16254 project team for their work on this standard.

#### **ISO 5128**

WG 42 has begun pre-NWIP activity to assess and review ISO 5128, which was last updated in 1980. This pre-NWIP effort will determine if a NWIP will be submitted for consideration, based on the results from the initial review of the potential scope and purpose for an update to ISO 5128.

ISO 5128 is used as the basis of regulatory requirements in the Russian Federation and related Customs Union countries. ISO 5128 was developed as an engineering assessment method; it was not developed as a method for assessment of human health or vehicle safety considerations.

#### Other

WG 42 has received presentation from Sweden on potential needs to develop International Standards for motor vehicle cooling fan noise. Pre-NWIP on this item has begun in 2016 and a first draft was presented at the June 2018 meeting of WG 42.

ISO was requested by UN WP.29/GRB to provide a technical review of UN R51.03, Annex 7, commonly known as "Additional Sound Emission Provisions (ASEP)" to address issues of technical definitions and clarity. In February 2017, GRB invited ISO to further participate in the Phase 2 revision of ASEP, which will review the scope and purpose of UN R51.03 Annex 7 in light of practical experience and emerging concerns. ISO has specifically been invited to propose indoor test methods for ASEP. WG 42 will also consider the technical issues of testing, including the feasibility, at any vehicle operating condition of speed or acceleration.

WG 42 would like to especially thank Mr. Philippe Legrand for his role as TC 22 liaison officer.

All WG 42 documents are archived to the ISO LiveLink servers.

I would like to thank the TC 43 secretariat for their significant and helpful assistance in managing the work of WG 42. I also want to thank our Secretary, Ms. Helen Ule (Canada) for her work to support WG 42.

Doug Moore, Convener of WG 42 (ISO TC 43/SC 1 & TC 22)

# WG 45 – Description and measurement of environmental noise (Revision of ISO 1996-series)

Since the last Plenary Meeting in Denmark in May 2017, the revised ISO 1996-2 was published in July 2017. In addition, the working group met once in Boston, USA on 24th June 2017 to discuss the topics of strong low frequency content, aircraft noise adjustment, maximum likelihood estimation for CTL, impulse noise adjustments and wind turbine noise. In addition, as ISO rules required reappointment of the convenor in 2017, this was also discussed at that meeting. As a result, on 20th July 2018, I was voted in as new convenor for the working group to replace Paul Schomer who has had this role for 20 years. A huge thank you to Paul Schomer for his many years of convenorship.

WG45 has a Working Task WT 45-17441 concerning windturbine noise (ISO/TC 43/SC 1 N 2232 Report Of The Secretariat Of ISO/TC 43/SC 1 "Noise" (2017)). Working Tasks are not officially registered by the ISO Central Secretariat and thus there are no deadlines and no officially registered scope of work. Although the working group has no formal active tasks/projects, it does not have to be disbanded if there is still continued interest and suggestions for work. On the basis of the last WG45 meeting, where these topics were discussed, I am aware that USA and Denmark are/were considering NWIPs for WG45. In addition, there is some liaison with IEC TC 88 on wind turbine noise assessment. Previously, Germany had considered making a formal proposal for a new work item on this subject but this may now be superseded by the IEC TC 88 initiative.

It was agreed at the Boston meeting to group the Part 1 Amendment proposals on Definition of Strong Low Frequency Content, Aircraft Noise Adjustment and Maximum Likelihood Estimation for CTL into one proposal, if possible. It was also agreed to make separate proposals for wind turbine noise assessment and for the impulse PAS.

WG45 has requested that our sister Working Group 61 include wind turbines in the scope of the ISO 9613 revision under consideration, and we now await a New Work Item proposal to revise ISO 9613 including wind turbines in the proposed scope.

As my first action as convenor, I have requested that, for the Plenary Meeting in Japan in November:

- 1. The US Members of the Working Group prepare a presentation of a future work item proposal on an Amendment to Part 1 for inclusion in the agenda of the TC 43/SC 1 plenary meeting
- 2. The Danish Members of the Working Group prepare a presentation of a future work item proposal on a PAS on Impulsive Noise for inclusion in the agenda of the TC 43/SC 1 plenary meeting.

I will continue to liaise with IEC TC 88 on the measurement of wind turbine noise imission, how we contribute to the process, and how we can integrate this into the ISO 1996 series.

I have proposed that WG45 meet ups virtually, using a web-meeting or teleconference, and also a physical meeting within the next 12 months.

Finally, I look forward to the next steps we take.

Douglas Manvell, Convenor of WG 45

## WG 51 - Noise from shooting ranges

#### Meetings

In the reporting period (2017-05 to 2018-07) the following meetings of WG 51 took place:

- 34th meeting on the 15th of May 2017 in Copenhagen, Denmark
- 35th meeting on the 12th and 13th of October 2017 in The Hague, The Netherlands
- 36th meeting on the 25th and the 26th of January 2018 in Duesseldorf, Germany
- 37th meeting on the 5th and the 6th of July 2018 in The Hague, The Netherlands;

Additional work has been done in WG 51 by phone and email-communication.

The next meeting will take place on the 13th and 14th of November 2018 in Matsue, Japan.

#### Status of work:

Progress has been achieved regarding the following topics:

## Revision of ISO 17201-1 "Acoustics – Noise from shooting ranges – Part 1: Determination of muzzle blast by measurement"

The revision of ISO 17201-1 was started based on Resolution 8/2014-05 agreed upon by ISO/TC 43/SC 1. After skipping the CD-stage in case of ISO 17201-1 the manuscript for a Draft International standard was developed by WG 51 and published 2017-08 by ISO. In consideration of the result of voting with gathered comments a manuscript for the Final Draft International Standard was elaborated by WG 51 and finally dispatched to ISO for publication. Currently some changes, especially regarding definitions, are still under discussion between ISO and the convenor of WG 51.

# Revision of ISO 17201-3:2010 "Acoustics – Noise from shooting ranges – Part 3: Guidelines for sound propagation calculations"

The revision was started with skipping the CD- and the DIS-stage in strong consideration of Resolution 9/2015. ISO/TC 43/SC 1 did restrict the revision of a minor one. It has been done by WG 51 in the run of some meetings and the manuscript for a Final Draft Standard was finished at the end of May 2018 and dispatched to the secretary of ISO/TC 43/SC 1 for further proceedings. That is the known actual stage.

## Revision of ISO 17201-2 "Acoustics – Noise from shooting ranges – Part 2: Estimation of muzzle blast and projectile sound by calculation"

The project has been launched with the resolution 19/2015. The following target dates have been set for processing:

Start date for revision: 2014-05-31 Draft International Standard limit: 2017-05-31 International Standard limit: 2018-05-31

Since the target date for a DIS was not reached, the project was deleted in May 2017 with resolution 36/2017 by ISO/TC 43/SC 1. However, that project was registered with that resolution as preliminary work item. Dealing with the content of that PWI was on the agenda of the 36th and 37th meeting of the WG 51. As soon as a Committee Draft has been prepared by WG 51, a written ballot will be initiated for the activation of that project. A manuscript for a Committee Draft is still under preparation in WG 51. Target date of such a CD should be the end of 2018.

Developing and editing of ISO/NWIP 17201-6 "Acoustics – Noise from shooting ranges – Part 6: Noise exposure of the shooter, the observer or the instructor respectively at close range of the sound source"

At the plenary meeting of ISO/TC 43/SC 1 a first initial draft for such a project has been discussed and further preparatory work has been initiated. The following target dates have been set for processing:

Start date: 2017-10-05
Draft International Standard limit: 2019-05-27
International Standard limit: 2020-05-27

That project has been dealt as initial draft at the 34th meeting of WG 51 and at the 35th up to the 37th meetings of WG 51 in depth. Notable progress has been made. Objective should be to finish a first Committee Draft by the end of 2018.

Mr Kuehner, Convenor of WG 51 Mr Kunzmann, Secretary of WG 51

## WG 54 – Perceptual assessment of soundscape quality

#### Meetings:

The last meeting of WG54 was held on the 23rd and 24th of July 2018 in Berlin.

#### Status of work:

ISO/TS 12913-2:2018 Acoustics – Soundscape Part 2; Data collection and reporting requirements has now been published.

The meeting decided that Part 3 should also be a Technical Specification (TS) for consistency with Part 2.

The draft document was gone through and some items were deleted to prevent confusion and a few new items were added. The title and scope were modified to cover just the analysis with the assessment to be Part 4. A NWIP item will be needed for Part 4 in due course.

The issue of uncertainty has been introduced in a tentative way to broadly cover repeatability, reproducibility, validity, and reliability. The details of this will be developed as evidence dictates.

It was made clear that this part applied only to in-situ measurements and not to laboratory listening tests. It was felt that laboratory listening tests would fall outside the scope of this standard and may require a separate standard.

Form 4 for the activation of a new work item proposal was completed. This was submitted so that the twelve-week voting period started at the end of July and concluded at the end of October. This allowed just enough time for the voting results and the comments to be made available to WG 54 by the 2nd of November so that it could be considered on the 12th of November at the Japan meeting.

The overall timescale is to have a DIS ready by November 2020 and for publication in November 2021.

Phil Dunbavin, Convenor WG 54.

## WG 56 - Quality assurance of noise calculation methods implemented in software

#### Meetings:

In the reporting period (2017-05 to 2018-08) the following meetings of WG 56 took place:

- 7th meeting on the 17th of May 2017 in Copenhagen, Denmark
- 8th meeting on the 5th of October 2017 in Berlin, Germany
- 9th meeting on the 21st of February 2018 in Berlin, Germany

A meeting in conjunction with the plenary meeting of ISO/TC 43/SC 2 in Mutsue (Japan) is not planned.

#### Status of work:

Progress has been achieved regarding the following topics:

Preparation of a draft for ISO/TR 17534-4 "Acoustics – Software for the calculation of sound outdoors – Part 4: Recommendations for quality assured implementation of Directive 2015/996 (CNOSSOS EU) calculation methods in software according to ISO 17534-1"

Main part of discussion in the frame of three WG 56-meetings was to gather open technical issues in relation to the Directive 2015/996 and to propose, to explain and finally to confirm corresponding solutions. For 14 technical issues were solutions agreed upon. They are to consider as basis for clause 5 "Additional Recommendations" in ISO/TR 17534-4 in analogy to Part 3 of that standard-series.

Another part of work in WG 56-meetings was to develop test cases for quality assurance purposes. 27 corresponding test cases were already elaborated and are currently under final preparation.

Briefly discussed was the possibility to add a further part to the standard-series in order to rule the quality assurance in relation to NF S31-133:2011: Acoustique – Bruit dans l'environnement – Calcul de niveaux sonores (Acoustics – Outdoor noise calculation of sound levels). It is to assume that such a NWIP could be started by the France member body in near future.

Wolfgang Probst, Convenor of WG 56 Bernd Kunzmann, Secretary of WG 56

## WG 57 - Joint ISO/TC 43/SC 1-ISO/TC 22 WG, In-situ measurements of blocked forces

Since the last plenary meeting 15th May 2017 in Copenhagen, the following activities have taken place:

- 2017-06-28: A Committee Draft was uploaded to the portal and submitted to ISO.
- 2017-10-16: Comments and results of voting on CD received 15 votes cast in favour, 4 with comments. 11 abstentions.
- 2018-02-28: Participants in a 'road test' of the draft standard submitted their reports to the committee. Four reports were received mostly from automotive related companies who had tried out the method in the standard.
- 2018-03-22: The first day of a two day committee meeting was held at the University of Salford. This was a working meeting where delegates worked on updating the Committee Draft in response to comments from the voting and from the field trials. The meeting was attended by 7 delegates plus 1 observer.
- 2018-03-22: The second day of a two day committee meeting at the University of Salford consisting of a formal committee meeting attended by 7 delegates plus 2 other who joined on skype plus 1 observer. Five countries were represented (UK, France, Germany, USA, Sweden).
- 2018-06-29: Following fairly extensive updates and improvements identified in the March meeting a Draft International Standard was submitted to ISO and uploaded to the portal.
- No meeting is to be organized at Matsue, partly because the timing does not fit well with the
  voting on the DIS and also because committee members were concerned about costs of
  travel.
- The next meeting is proposed to take place in Sweden, hosted by Volvo cars in January 2019. Exact dates are still to be finalized.

Andy Moorhouse, Convenor of WG 57

#### WG 58 – Revision of ISO 5135 – Sound power levels of air-terminal devices

#### Meetings:

The working group held an online plus telephone meeting on 2018 May 23. We conducted an additional revision using emailed copies of the standard in June and July 2018.

## Status of work:

The working draft was approved by the working group members and submitted to the secretariat on 2018 July 19.

Stephen Lind, Convenor of WG 58

## WG 59 - Revision of ISO 11691 - Insertion loss of ducted silencers (Survey method)

WG 59 has not had any meeting since the plenary meetings in Copenhagen and it will not meet in Japan. However, the WG has prepared a CD (ISO TC 43/SC 1 N 2348 ISO/CD 11 691 Acoustics — Measurement of insertion loss of ducted silencers without flow — Laboratory survey method) which was circulated on 2018-08-29 for comments and approval for registration as a DIS by 2018-10-12.

Hans Jonasson, Convenor of WG 59

# JWG 60 – Joint ISO/TC 43/SC 1 – ISO/TC 22 WG; Method for transposition of dynamic forces generated by an active component from a test bench to a vehicle

The first meeting of this Working Group was held in Copenhagen, Denmark, on May 16<sup>th</sup>, 2017 with 6 participants, from Canada, US, Sweden, Germany and France. A second meeting took place in November 2017, by WebEx.

During these meetings, some decisions were made concerning the standard:

- Modify the title and scope of the standard (Done).
- The standard will be amended to consider any active component and any active receiving structure. Terms relative to automotive industry will be removed. Definitions of main terms have been chosen. A new draft (including questionnaire) has been proposed starting from the French standard (Will be presented in Matsue).
- An additional chart has to be drawn to help using the standard and choosing the methods (Will be presented in Matsue).
- Stay compatible with ISO TC 43/SC 1/WG 57 project (ISO 20270).
- Examples: One example from automotive industry will be kept, members of the group are invited to provide other data from different industrial sectors.
- An evaluation document has been produced to obtain feedbacks for users.
- Bloc sensor method has been presented as an example of application. The group has agreed to start the work to put it as an annex of the standard (Will be presented in Matsue).
- Further work is needed on:
  - Matrix inversion advice
  - Uncertainties

The target is to have a CD ready for the next plenary meeting of TC 43 (November 2018).

Xavier Carniel, Convenor of JWG 60

## WG 61 – Revision of ISO 9613-2 – Attenuation of sound during propagation outdoors

#### Meetings:

In the reporting period (2017-05 to 2018-08) the following meetings of WG 61 took place:

- 1st meeting on the 22nd of February 2018 in Berlin, Germany
- 2nd meeting on the 19th of June 2018 in in Berlin, Germany

Additional work has been done in WG 61 by phone and other types of electronic-communication.

A meeting in Matsue, Japan is not on the schedule.

#### Status of work:

Both afore mentioned meetings dealt with the following topic:

#### Revision of ISO 9613-2 – Attenuation of sound during propagation outdoors

Starting point was the Resolution 14/2017 – ISO 9613-2 review – agreed upon by ISO/TC 43/SC 1. The revision of ISO 9613-2 was registered as a preliminary work item with Mr. Wolfgang Probst, Germany, as project leader and convenor of a new working group 61.

In the run of two meetings former review results were checked and discussed and arguments were gathered regarding the potential need of revision. In summary, the following statements and issues should be taken closer into consideration:

- The calculation of sound propagation on the basis of ISO 9613-2 is widely applied in national and international context.
- Experiences gathered and in parts already verified over several years have shown that a revision is required.
- The purpose of revision is to remove existing ambiguities as developed in the frame of quality assurance of software implementation (ISO/TR 17534-3) and to improve the sensitivity for the ground geometry and for different propagation conditions.
- The revised ISO 9613-2 shall be qualified as an "engineering method" with the main target to describe sound propagation on the basis of complete environmental data models including built-up areas, forests and other types of terrain with the focus on a precise description following the rules of quality assurance according to ISO 17534-1.

The need of revision is supported by WG 61.

A first draft ISO/Outline 9613-2 was circulated in WG 61 for comments from the 2018-08-10 to the 2018-08-23. These results create the basis for circulating a NWIP together with an attached ISO/Outline 9613-2 in ISO/TC 43/SC 1.

Note: Only briefly discussed with the chairman of ISO/TC 43/SC 1, Douglas Manvell, and some members of WG 61 was a proposal to standardize the calculation of sound outdoors and indoors in one standard-series. It could be developed with the following parts:

- ISO 9613-1 Attenuation of sound during propagation Part 1: Attenuation due to air absorption (indoor and outdoor)
- ISO 9613-2 Attenuation of sound during propagation Part 2: Prediction of sound pressure levels outdoors, engineering method
- ISO 9613-3 Attenuation of sound during propagation Part 3: Prediction of sound pressure levels indoors, engineering method (in relation to ISO/TR 11690-3)

That should be discussed in ISO/TC 43/SC 1 as potential future work.

Wolfgang Probst, Convenor of WG 61 Bernd Kunzmann, Secretary of WG 61

# WG 62 - Revision of ISO/TS 15666 - Assessment of noise annoyance by means of social and socio-acoustic surveys

WG 62 held its first meeting in Berlin on the 25<sup>th</sup> of July 2018. We are implementing resolution 26/2017 of the Copenhagen meeting.

ISO/TC 43/SC 1 confirms ISO/TS 15666:2003 "Acoustics — Assessment of noise annoyance by means of social and socio-acoustic surveys" and decides to revise ISO/TS 15666 with Ms Charlotte Clark, UK, as project leader and Philip Dunbavin, UK, as convenor of a new working group entitled "Revision of ISO/TS 15666 — Assessment of noise annoyance by means of social and socio-acoustic surveys" and with the enlarged development track of 48 months. It is confirmed that the scope is unchanged. The secretariat is requested to launch a call for experts.

The title and scope were approved as unchanged. The agreed timeline is: DIS by the end of May 2020 and publication by 15<sup>th</sup> of June 2021.

All the comments were considered some of which were adopted whilst others will involve considerable research and will be fully considered at the WG's second meeting.

In preparation for that meeting a spreadsheet of the papers considering annoyance over the last three years had been prepared. This will be further expanded with other relevant papers.

An e-mail is being prepared which describes the key questions for which the working group is seeking evidence. These will be sent to the known researchers in this field and also to some individuals who were involved in the 2003 version.

It was considered appropriate to make any modifications primarily as options so as not to adversely affect those countries who have adopted the standard and did not seek a revision.

The working group unanimously agreed that the revision should be a full ISO rather than an ISO/TS as per the UK Comment 002.

The email questions are to be prepared jointly by all the working group participants. These will be circulated around before being issued and given an N number.

It was considered that it would be inappropriate to hold a meeting in Japan. It is now proposed to hold the next meeting in London on the 25<sup>th</sup> of February 2019.

Phil Dunbavin, Convenor of WG 62

# WG 63 – Revision of ISO 2922 – Measurement of airborne sound emitted by vessels on inland waterways and harbours

Working Group 63 was tasked to provide an update to ISO 2922, "Acoustics — Measurement of airborne sound emitted by vessels on inland waterways and harbours". WG 63 consists of five members from US, Germany, Japan, and Norway. The convener prepared a set of revisions to ISO 2922 and circulated these revisions to the five WG 63 members in April and June 2018. The revisions were to address comments from the periodic review which was conducted back in early 2017. No physical meetings or web-enabled meetings were held due to lack of interest from the Working Group.

This revised (third) edition will cancel and replace the second edition (ISO 2922:2000), which has been technically revised. The important change to the previous edition was to affirm its application to vessels of all sizes. This third edition also includes a series of small changes such as: the specification of sound pressure level measurement response (slow), integration time for background noise (5 minutes), and the surf/weather limitation (Sea State 1) during the survey period. An equation to compute the sound pressure level at 25 m was also added.

There were no comments on the Working Draft (WD) version from the WG 63 members, and so with the advice of the ISO/TC 43/SC 1 Secretary (Hans-Joachim Kornprobst), the convener agreed to issue the revised ISO 2922 as a Committee Draft (CD). ISO/CD 2922 has been circulated (document N 2341) to the member bodies of ISO/TC 43/SC 1 for comments and voting by 2018-10-12.

Michael Bahtiarian, Convenor of WG 63

# WG 64 - Revision of ISO 7574 (all parts) - Statistical methods for determining and verifying stated noise emission values of machinery and equipment

The Working Group was newly formed in late 2017 and began its work in earnest in early 2018 after the WG was duly constituted with appointed members. Most of the work has been in the form of emails and documents exchanged amongst members. We commenced with a review of the current four parts of ISO 7574 and fixed several typos in the newly-created MS Word versions of these standards. The convenor prepared several background documents, including a 28-page "Primer," that elucidated the underlying statistical principles behind the procedures in ISO 7574. An initial Working Draft (version 1.0) was prepared and circulated to members for comments. There was one 2.5-hour face-to-face meeting held on 2018 Aug 26 in Chicago, IL, USA in conjunction with the Inter-Noise 2018 conference held there. Six of the current seven members of the WG were in attendance. (WG 64 will not be meeting in Matsue in November). The WD was reviewed in detail at the meeting. It is anticipated that a second draft of the WD will be completed and reviewed by the end of the year. Much appreciation is expressed to Secretary Hans Kornprobst for his assistance and helpful suggestions during the start-up of this Working Group.

Matthew A. Nobile, Convenor WG 64

#### WG 65 - Acoustic quality of open office spaces

The Working Group met for the first time on 13 and 14 December 2017 in Paris.

#### The meeting allowed to:

- inform WG experts about ISO processes,
- introduce the objectives of project ISO 22955,
- present a development roadmap,
- address the comments received during the consultation on the NWIP from July to October 2017,
- present various articles related to the project,
- elaborate a table of contents for the project,
- distribution of contributions on the project for the next meeting.

The Working Group met for the second time on 6 and 7 June 2018 in Paris.

#### The meeting allowed to:

- examine the different contributions,
- discuss technical points,
- update the roadmap,
- present various articles related to the project,
- distribution of contributions on the project for the next meeting.

A consultation is organized on the working draft of the ISO 22955 project from August 17, 2018 to September 16, 2018.

A workshop is organized at the beginning of October 2018 to deal with technical issues. All WG experts are invited to present their works.

The next meeting of ISO/TC 43/SC 1/WG 65 will take place in November 2018.

The goal is to conduct the CD enquiry in November/ December 2018.

Yoan Le Muet, Convenor of WG 65 Olivier Cartigny, Secretary of WG 65

This report is to be submitted to the relevant BSI Programme Manager at the same time as the AITS form is returned (i.e. within 1 month of the date of the meeting). It will then be circulated to the relevant BSI Technical Committee.

Meeting of Committee: ISO/TC43/SC1/WG54

Date(s) of Meeting: 12<sup>th</sup> November 2018

Place of Meeting: Matsue, Japan.

(Town & Country)

Author of report: Phil Dunbavin

Other UK attendees: None.

Countries & number in delegations [e.g. DE(4)] Germany(3), Japan(3), plus secretariat and two

observers from Japan.

Additional major papers circulated at meeting

There were no additional papers

Items added to Agenda at meeting

There were no items added to the agenda.

List of discussed items

See the agenda at the end of this report.

Other comments/items

There were no other comments/items.

**Date of Next Meeting:** 

Either the week beginning the 3<sup>rd</sup> of June or the 20th of June.

Proposed venue for next meeting: Either Berlin or Madrid depending on the date.

# 1 Opening of the meeting

The meeting was opened.

### 2 Adoption of the draft agenda

(doc. WG 54 N 169)

The draft agenda was adopted.

#### 3 ISO Code of Conduct for the technical work

(doc. WG 54 N 57)

The meetings attention was drawn to the document.

# 4 NWIP ISO/TS 12913-3 – Result of Voting – Discussion of comments (docs. WG 54 N 163, N 168)

All of the 58 comments were resolved and the draft will be modified accordingly by the project manager. In response to the comment number 19 from the United States an Annex covering the concept of "Triangulation" is being prepared.

The timescale going forward is as follows:

To have the revised draft to the ISO Secretariat by the second week of February 2019. This will then be issued for international voting to become a CD on the 1<sup>st</sup> of March 2019. The comments will be collated by the secretariat in May and they will be discussed at the next meeting in June.

## 5 Any other business

There was no other business.

## 6 Requirements concerning a subsequent meeting

There are two possible dates:

The week beginning the 3rd of June in Berlin or the 20<sup>th</sup> of June in Madrid after InterNoise 2019. The later date will allow for many more participants to attend.

If in Madrid the convenor will talk to the InterNoise organisers to have a room made available for this.

## 7 Closure of the meeting.

The meeting was closed.



## ISO/TC 43/SC 1/WG 54 N 169

(replaces N 167)

# **Revised Draft Agenda**

# for the 16<sup>th</sup> meeting of ISO/TC 43/SC 1/WG 54 in Matsue, Japan on 2018-11-12

Date/Place: see invitation, doc. WG 54 N 162

- 1 Opening of the meeting
- 2 Adoption of the draft agenda (doc. WG 54 N 169)
- 3 ISO Code of Conduct for the technical work (doc. WG 54 N 57)
- 4 NWIP ISO/TS 12913-3 Result of Voting Discussion of comments (docs. WG 54 N 163, N 168)
- 5 Any other business
- 6 Requirements concerning a subsequent meeting
- 7 Closure of the meeting

This report is to be submitted to the relevant BSI Programme Manager at the same time as the AITS form is returned (i.e. within 1 month of the date of the meeting). It will then be circulated to the relevant BSI Technical Committee.

Meeting of Committee: ISO/TC43/SC2

Date(s) of Meeting: 15 November 2018

Place of Meeting: Matsue, Japan

(Town & Country)

Author of report: Gerry Pettit

Other UK attendees: Phil Dunbavin, Carl Hopkins.

#### Countries & number in delegations [e.g. DE(4)]

AT(1), BE(1), CA(2), DE(4 inc chairman and secretary), DK(5), FR(1), IT(1), JP(4), KR(2), PL(1), NO(1), SE(1), SF(1), UK(3), US(1)

#### Additional major papers circulated at meeting

None

#### Items added to Agenda at meeting

None

#### List of discussed items

As per agenda. Report follows agenda numbering.

#### Other comments/items

None

Date of Next Meeting: 8-12 June 2020

Proposed venue for next meeting: Paris, France

- 1. Opening of the meeting
- 2. Roll call of delegates
- 3. Adoption of the agenda N1508

Adopted without comment.

4. Appointment of the resolutions drafting committee

Marc Rehfeld/Gerry Pettit to assist secretary and chairman

5. Report of the secretariat N1498

There were no questions to the factual report.

- 6. Liaisons
- 6.1 Reports of liaison officers N1503, 1504, 1506

Marc Rehfeld spoke to his report on the activities of ISO/TC160/SC2. No other liaison officer was present.

6.2 Review of liaisons

As there were very few active liaison officers there was a call for volunteers to act as liaison officers for the established liaisons. After some discussion as to whether to delete some liaisons it was agreed to keep all the existing liaisons.

A resolution was taken to confirm all liaisons.

- 7. Reports of the convenors
- 7.1 WG 17 Measurement of flanking transmission in the laboratory and in the field N1507

Report of the Convenor, Mr. Hopkins

The written report was talked to by Carl Hopkins. He said he expected the DIS submission deadline for ISO 10848-5 to be met.

Carl Hopkins was reappointed as convenor for a period of 3 years.

7.2 WG 18 — Measurement of sound insulation in buildings and of building elements N1510

Report of the Convenor, Mr. Wittstock

The planned reorganization of ISO 10140 and ISO 717 was reported. It was confirmed that the editorial adjustments to 10140 would be covered first and the technical changes would be looked at subsequently.

A resolution was taken to approve ISO 12999-1 progressing to a DIS.

ISO 12999-2 will proceed towards a DIS. No resolution required.

A resolution was taken re the revision of 16283-2 to correct errors with Carl Hopkins as convenor.

Volker Wittstock was reappointed as convenor for a period of 3 years.

7.3 WG 26 Measurement of sound absorption in a reverberation room N1495

Report of the Convenor, Mr. Vercammen

The convenor's report said that the WI was activated and a first meeting would be convened shortly. There was a complaint from Italy about lack of information from the convenor. Denmark also complained about the state of affairs with the WG. The CD was overdue.

A resolution was taken to disband the WG and transfer the work to a new WG 35.

7.4 WG 27 — Joint ISO/TC 205-ISO/TC 43/SC 2 WG: Indoor acoustic environment N1502, 1515

Report of the Convenor, Mr. Demanet

France reported that AFNOR was close to finding a new convenor to replace Cyrille Demanet who had resigned as convenor. There seems to have been little progress as there had been only one meeting of the WG.

A resolution was taken re the pending appointment of a new convenor.

7.5 WG 28 — Measurement of office screen sound attenuation N1479, 1514

Report of the Convenor, Mr. Hagberg

The report was spoken to by Klas Hagberg.

A new title of CD 23351 is to be proposed.

WG28 is amending the scope to improve its clarity.

A resolution was taken to disband the WG and the work will be transferred to a new WG under the same convenor.

The convenor was reappointed as convenor of a new WG 34 for 3 years.

7.6 WG 29 — Acoustic classification of buildings N1500

Report of the Convenor, Ms. Rasmussen

The convenor explained the outcome of the FDIS. As a result of the FDIS failure it is proposed to register WI for a TS rather than a standard. The convenor felt that certain industries had influenced the negative vote in some countries.

A resolution was taken to propose a TS in place of a standard.

7.7 WG 30 — Revision of ISO 11654

Report of the Convenor, Mr. Mayer N1511

Julia Listringhaus from DIN gave the report. The first and second DIS had both failed. It was decided that as no progress could be made at present the WG should suspend work for about 2 years.

A resolution was taken to disband the WG.

7.8 WG 31 — Revision of ISO 3822 - Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations

Report of the Convenor, Mr Chéné

There was no report as the work has been completed. As the WG has no WIs at present a resolution was taken to disband the WG.

7.9 WG 32 — Determination of acoustical parameters of materials N1491, 1501

Report of the Convenor, Mr. Jaouen

The work on 9053-1 is complete.

9053-2 is currently being balloted. But it will not be developed by WG32 but in WG18.

The WG thus has no active WIs but there are new WIs on ISO 10534 pending.

Resolutions were taken re amending ISO 10534-2 and preparing parts 3 & 4 to deal with 3 and 4 microphone tchniques.

8. Consideration of the work items of the programme of work and up-date of target dates for work in progress

Acoustic criteria for rooms and spaces for music rehearsal, ISO 23591. A presentation was given by the project leader Jon G Olson.

The first meeting had taken place where the first draft was discussed.

A new WG33 was proposed with Jon G Olson as convenor. A supporting resolution was taken.

9. Items for future work

9.1 ISO 3382-3:2012 rev., Acoustics — Measurement of room acoustic parameters - Part 3: N1430

Open plan offices. Discussion based on the request from Brazil, Germany and Italy for revision during systematic review in 2017.

The motivation for the requests to revise the standard was queried. It was assumed that the issue was uncertainty but this was not confirmed.

It was agreed to revise ISO 3382-3 and Valtteri Hongisto agreed to act as the project leader for a revision.

A new WG 34 was set up to handle the work along with ISO 23351.

9.2 ISO 9052-1:1989 rev., Acoustics — Determination of dynamic stiffness — Part 1: 1431 Materials used under floating floors in dwellings. Discussion based on the request from Canada, France, Italy, Norway, Poland and Sweden for revision during systematic review in 2017

France reported that Luc Jouan is willing to handle this revision in WG32. A resolution was taken.

9.3 ISO 17497-1:2004 rev., Acoustics — Sound-scattering properties of surfaces — 1471 Part 1: Measurement of the random-incidence scattering coefficient in a reverberation room. Discussion based on the request from France, Korea and USA for revision during systematic review in 2018.

The reasons given for a revision were not sufficiently clear to justify setting up a WG. A resolution was taken to confirm the standard.

9.4 ISO 10534-2:1998 rev., Acoustics — Determination of sound absorption coefficient and impedance in impedance tubes — Part 2: Transfer-function method. Request from France to revise the document in order to change the scope and to make some minor changes

France was asked to submit a NWI proposal for this. A resolution was taken.

9.5 ISO 10534-3 Request from France to register a new project to deal with a 3 microphones technique

France was asked to submit a NWI proposal for this. A resolution was taken.

9.5 ISO 10534-4 Request from France to register a new project to deal with a 4 microphones technique

France was asked to submit a NWI proposal for this. A resolution was taken.

France will therefore make proposals for all 3 parts which would be sent for CIB. The work, if approved, would be handled by WG32.

10. Consideration of possible disbanding of working groups

WG 26, 28, 30 & 31 are to be disbanded. A new WG 35 will be set up with the title 'sound absorption' to cover ISO 354 and 23351-1.

- 11. Requirements concerning a subsequent meeting
- 8-12 June 2020, Paris.
- 12. Any other business

None

- 13. Approval of resolutions
- 25 Resolutions were taken mainly unanimously
- 14. Closure of the meeting

## DRAFT AGENDA/PROJET D'ORDRE DU JOUR

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2.	Roll call of delegates		
3.	Adoption of the agenda		1508
4.	Appointment of the resolutions drafting committee		
5.	Report of the secretariat		1498
6.	Liaisons		
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7.	Reports of the convenors		
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7.2	WG 18 — Measurement of sound insulation in buildings and of building elements Report of the Convenor, Mr. <i>Wittstock</i>		
7.3	WG 26 — Measurement of sound absorption in a reverberation room Report of the Convenor, Mr. <i>Vercammen</i>		
7.4	WG 27 — Joint ISO/TC 205-ISO/TC 43/SC 2 WG: Indoor acoustic environment Report of the Convenor, Mr. <i>Demanet</i>		1502
7.5	WG 28 — Measurement of office screen sound attenuation Report of the Convenor, Mr. <i>Hagberg</i>		
7.6	WG 29 —Acoustic classification of buildings Report of the Convenor, Ms. <i>Rasmussen</i>		1500
7.7	WG 30 — Revision of ISO 11654 Report of the Convenor, Mr. <i>Mayer</i>		
7.8	WG 31 — Revision of ISO 3822 - Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations Report of the Convenor, Mr. <i>Chéné</i>		
7.9	WG 32 — Determination of acoustical parameters of materials Report of the Convenor, Mr. <i>Jaouen</i>		1501
8.	Consideration of the work items of the programme of work and up-date of target dates for work in progress		
9.	Items for future work		
9.1	ISO 3382-3:2012 rev., Acoustics — Measurement of room acoustic parameters - Part 3: Open plan offices Discussion based on the request from Brazil, Germany and Italy for revision during systematic review in 2017		1430
9.2	ISO 9052-1:1989 rev., Acoustics — Determination of dynamic stiffness — Part 1: Materials used under floating floors in dwellings Discussion based on the request from Canada, France, Italy, Norway, Poland and Sweden for revision during systematic review in 2017		1431

9.3	ISO 17497-1:2004 rev., Acoustics — Sound-scattering properties of surfaces — Part 1: Measurement of the random-incidence scattering coefficient in a reverberation room Discussion based on the request from France, Korea and USA for revision during systematic review in 2018	1471
9.4	ISO 10534-2:1998 rev., Acoustics — Determination of sound absorption coefficient a impedance in impedance tubes — Part 2: Transfer-function method Request from France to revise the document in order to change the scope and to make some minor changes	nd
9.5	ISO 10354-3 Request from France to register a new project to deal with a 3 microphones technique	
9.5	ISO 10354-4 Request from France to register a new project to deal with a 4 microphones technique	
10.	Consideration of possible disbanding of working groups	
11.	Requirements concerning a subsequent meeting	
12.	Any other business	
13.	Approval of resolutions	

Closure of the meeting

14.

This report is to be submitted to the relevant BSI Programme Manager at the same time as the AITS form is returned (i.e. within 1 month of the date of the meeting). It will then be circulated to the relevant BSI Technical Committee.

Meeting of Committee: ISO TC43 SC2 WG18

Date(s) of Meeting: 13-11-2018

Place of Meeting: Matsue, Japan

(Town & Country)

**Author of report: Carl Hopkins** 

Other UK attendees: Phil Dunbavin, Gerry Pettit

**Countries & number in delegations** [e.g. DE(4)] FR(1) USA (1) , DK(4, DE(1), J(6), KR(3), BE(1), CA(2), F(2), IT(1),A(1), SE(1), PL(1),NO(2)

Additional major papers circulated at meeting

None

Items added to Agenda at meeting

Point 11 Queries on ISO 16283-2 and ISO 10848-1

List of discussed items

#### Point 4 ISO 10140.

Lieven De Geetere discussed the changes to edit sections of deltaR and deltaL (moving the sections around) and update the references. The first task is to deal with the editorial changes. The plan is to try and synchronise the timing of the release of the revised ISO 10140 and ISO 717. The plan is to have a working draft in November 2018 and to ask for a PWI after the draft is in existence.

For the future there was an idea to have deltaL for ceilings, but France commented that for heavyweight floors deltaL is similar to deltaR, but it is not yet known whether this applies to lightweight floors. There might also be a possibility to have a standard mounting system for door leaves.

#### **Point 5 ISO/PWI 717-1**

Phil Dunbavin reported that editorial changes have all been done. Annex E on lightweight wall linings just requires input from Lieven De Geetere.

Denmark and Canada asked to delete spectrum adaptation terms and give the single-number quantities names that clearly indicate the A-weighting; to do this would require a vote to allow technical changes to ISO 717. This would require National Committees to consider the importance of the adaptation terms in their regulations. It was also suggested that all single-number quantities only require up to the 3.15kHz band as it is unnecessary for rating and it time-consuming or difficult to measure up to the 5kHz band.

At the plenary session tomorrow it will be asked for 717-1 to be registered as a CD.

#### **Point 6 ISO/CD 717-2**

Jeong Ho Jeong led the discussion to reply to comments on ISO/CD 717-2 which were agreed by the committee.

#### Point 7 ISO/NP 12999-1

Request from Italy relating to Table 2 which has been revised by Volker Wittstock. The committee were asked whether to accept this minor change as a CD or go straight to a DIS; the latter was agreed.

#### Point 8 ISO/CD 12999-2

Volker Wittstock led the discussion to reply to comments on ISO/CD 12999-2 which were agreed by the committee. The next step is to go to a DIS.

#### Point 9 ISO 10052 rev

Jeong Ho Jeong reported that he is now drafting ISO 10052 with changes to the measurement of impact sound insulation and will then circulate a CD.

#### Point 10 ISO/NP 9053-2

Volker Wittstock reported that the voting is underway on ISO/NP 9053-2 and if accepted then it is likely that it will be taken on by WG18.

#### Point 11 Report on activities of CEN/TC 126/WG 1

Spain have indicated that there are a few minor errors in ISO 16283-2 and these can be dealt with using a 12 month revision at the point that ISO 717-2 is in DIS form so that references can be made to the final single-number quantity for the rubber ball measurement.

Poland indicate that in ISO 16283-1, section 7.5.7 the reference to equation 1 near the end of the sentence should be equation 3.

Carl Hopkins described the email comments by Michel Villot.

Concerning Michel Villot's comments on changing the definition of the transmission function to normalise it to 1W paper (which might also have been prompted by a recent discussion on impact sound on walls) there were no major comments on this from the committee; hence the discussion will be continued with WG17.

Concerning Michel Villot's comments on ISO 3822, Volker Wittstock has talked to Geberit (and other tap suppliers) and they insist that ISO 3822 is essential. Volker suggested that a new measurement standard involving SBS power could be developed at CEN level.

Carl Hopkins asked whether it might be useful to adopt EN15657 and EN12354 Part 5 (and possibly EN12354 Part 6 for completeness even though this concerns reverberation times) as ISO standards to have standards on SBS power at ISO level. This would be more logical as then EN ISO 10848 would have a direct link to 12354-5 and in the future it might be possible to change ISO 3822 to be based on SBS power. However, it would be better to keep a CEN lead as the committee experts tend to be European so the regular meetings could remain in Europe.

#### Point 12 Any other business

There was no any other business.

#### Point 13 Date and place of the next meeting

In Germany between the 9 - 13<sup>th</sup> of September 2019, International Congress on Acoustics in Aachen.

This page of the report should include such items as major discussion points, items of concern for UK, UK views accepted or not accepted, decisions, progress since last meeting, whether or not the objectives of the meeting were achieved, the effectiveness of the Chairman/Secretary, actions to be achieved by the next meeting.

A copy of the Agenda is to be attached to this report.



# ISO/TC 43/SC 2/WG 18 N 673

(2018-08-31)

# Draft Agenda of the 32<sup>nd</sup> meeting

to be held on 2018-11-14 in Matsue (Japan)

Agenda item Document ISO/TC 43/SC 2/WG 18 N

- 1 Opening of the meeting
- 2 Roll call of experts
- 3 Adoption of the agenda
- 4 ISO 10140 (all parts)
  Report on the current status
- 5 ISO/PWI 717-1

Report of the project leader

Philip Dunbavin

Decision on the registration of the document as CD

6 ISO/CD 717-2

Report of the project leaders Jeong Ho Jeong and Hiroshi Sato Consideration of comments

7 ISO/NP 12999-1

Report of the project leader Decision on the registration of the document as CD/DIS Volker Wittstock

8 ISO/CD 12999-2

Report of the project leader Volker Wittstock
Consideration of comments

9 ISO 10052 rev.

Report of the project leader *Jeong Ho Jeong* 

Decision on the registration of the document as CD/DIS

# 10 ISO/NP 9053-2

Report of the proposed project leader Ole Herman Bjor/Volker Wittstock

# 11 Report on activities of CEN/TC 126/WG 1

- Impact sound of walls
- 12 Any other business
- 13 Date and place of the next meeting
- 14 Closing of the meeting

This report is to be submitted to the relevant BSI Programme Manager at the same time as the AITS form is returned (i.e. within 1 month of the date of the meeting). It will then be circulated to the relevant BSI Technical Committee.

Meeting of Committee: ISO/TC43/SC2/WG29

Date(s) of Meeting: 13<sup>th</sup> November 2018

Place of Meeting: Matsue, Japan.

(Town & Country)

Author of report: Phil Dunbavin

Other UK attendees: None.

#### Countries & number in delegations

USA (1), Austria (1), Denmark (4), Japan (5), South Korea (3), Belgium (1), Canada (2), Sweden (1), Italy (1), France (1), Italy (1).

#### Additional major papers circulated at meeting

There were no additional papers

#### Items added to Agenda at meeting

There were no items added to the agenda.

#### List of discussed items

See the revised agenda at the end of this report.

#### Other comments/items

There were no other comments/items.

Date of Next Meeting: No meeting date was set.

**Proposed venue for next meeting:** No meeting venue was agreed.

# 1 Opening of meeting

Roll call

The roll call was taken.

Adoption of agenda

The revised agenda was adopted.

Approval of Limelette meeting

The minutes were approved.

#### 2 Overview information ISO/FDIS 19488 and voting results

WG29 activity report to SC 2 meeting

The activity of WG29 was reviewed.

Voting results for ISO/FDIS 19488

The FDIS was disapproved by too many negative votes.

# 3 Implications of disapproval of the ISO/FDIS Feasibility of ISO/TS? Activity and time schedule? WG29 preliminary recommendation.

The current FDIS is out of time to become a revised FDIS. It is even more out of time to go back to the DIS stage. The best way forward is to prepare the FDIS as a NWIP for a Technical Specification and this is what may be proposed at the SC2 plenary meeting. In this case the comments on the FDIS are history and do not need to be addressed. This however would not be wise. There was little appetite for a long process of up to three years. The creation of an ISO/TS could be completed in less than twelve months.

Had the FDIS been a TS it would have passed because a TS does not take in to account negative votes. The convenor had contacted those countries who voted negative and discovered that the national committees were not always aware of the FDIS and how their country voted and that there was some hearsay evidence of large acoustic companies influencing the negative votes.

#### 4 Suggestions/ideas for future updates/amendments and research

A vote was taken to take the existing FDIS as a NWIP to become a Technical Specification. The voting was:

In Favour 13, Against 1, Abstain 1. The NWIP will be voted on at the SC2 plenary.

The Korean delegate gave a presentation on how the use of the 'rubber ball' measurements of impact sound could be introduced in a future version of the classification scheme. This may be incorporated at a later date when the revision of ISO 717 Part 2 is completed.

# 5 Conclusions

See 4 above.

# 6 Closing of the meeting

The meeting was closed.

# Revised Agenda – 7<sup>th</sup> ISO/TC 43/SC 2/WG 29 meeting, Matsue, Japan, 13 November 2018

Meeting place & time

**Date & Time:** Tuesday 13 Nov 2018, 13:30-17:00 **Place:** <u>Shimane Prefectural Convention Center</u>

1 Chome-2-1 Gakuenminami

Matsue-shi

Shimane-ken 690-0826 Japan

*Please notify your attendance at https://sd.iso.org/meetings/57162* 

Agenda		WG 29 Documents	Comments
1.	Opening of meeting Roll call Adoption of agenda Approval of Limelette meeting	N 53 N 49	
2.	Overview information ISO/FDIS 19488 and voting results ISO/FDIS 19488 WG29 activity report to SC 2 meeting Voting results for ISO/FDIS 19488	N 52 N XX	
3.	Implications of disapproval of the ISO/FDIS Feasibility of ISO/TS? Activity and time schedule? WG29 preliminary recommendation.		
4.	Suggestions/ideas for future updates/amendments and research		
5.	Conclusions		
6.	Closing of the meeting		