

Resolution
of the 16th meeting of COOMET TC 1.2 in the subject field
«Acoustics, Ultrasound, Vibration»

The 16th meeting of COOMET Technical Committee 1.2 in the subject field "Acoustics. Ultrasound. Vibration" was held on 30th September 2021 online.

Representatives from 5 COOMET member countries (Belarus, China, Russia, Turkey, Ukraine) took part in the meeting. In view of the requirement to a quorum at a CSB meeting according to COOMET D5/2021, the quorum at the meeting was reached.

List of participant of the 16th meeting of TC 1.2 in the subject field
«Acoustics, Ultrasound, Vibration»

Belarus	
Mr. Anatoly Volodchenko	Chair of TC 1.2, BelGIM
Mrs. Valentina Pozdeeva	Deputy Chair of TC 1.2, BelGIM
China	
Д-р Longbiao He	TC 1.2 member, Head of acoustics laboratory, NIM
Д-р Xing Guangzhen	NIM
Д-р Feng Xiujuan	NIM
Russia	
Dr. Aleksandr Isaev	coordinator in the field of underwater acoustics, FGUP «VNIIFTRI»
Dr. Anatoly Konkov	coordinator in the field of underwater acoustics, FGUP «VNIIFTRI»
Dr. Aleksey Nikolaenko	Head of acoustic measurements department, FGUP «VNIIFTRI»
Mr. Dmitry Golovin	Junior researcher of the Department of acoustic measurements of FGUP «VNIIFTRI»
Turkey	
Dr. Enver Sadikoğlu	TC 1.2 member, contact person from Turkey in the field of «AUV», TUBITAK UME
Ukraine	
Mr. Aleksandr Kosterov	TC 1.2 member, contact person from Ukraine in the field of «AUV», DP NDI "Systema"
Mr. Andrey Ivashchenko	TC 1.2 member, coordinator in the field of vibration, Head of research and production department of metrological assurance of measurements of motion parameters and vibroacoustic quantities, SE "Ukrmetrteststandart"

The meeting was held in accordance with the agenda, adopted by the participants.

№	Issue	Speaker
	Connection test	
1	Opening of the meeting, presentation of participants, approval of the agenda	TC Chair TC members or their official representatives
2	Report on TC 1.2 activities for 2020-2021 On implementation of resolutions of the previous TC 1.2 meetings	TC Chair
3	Information on the state of current COOMET projects in the AUV field	
3.1	Pilot COOMET comparison 706/RU/16 " Comparison of the results of measurements of the propagation velocity of longitudinal ultrasonic waves in solid media"	Deputy TC Chair
3.2	Supplementary comparison COOMET.AUV.A-S3 (COOMET project 757/RU/18 «Comparisons of national measurement standards of the sound pressure unit in air in the infrasound frequency range from 0,1 to 100 Hz»)	Mr. Alexey Nikolaenko (VNIIFTRI)
3.3	1. Pilot COOMET comparison 786/RU/19 «Comparisons of the results of amplitude and phase calibrations of hydrophones in the frequency range from 10 kHz to 500 kHz». 2. Key comparison CCAUV.W-K2 3. Report «Analytical representation of the hydrophone complex frequency response»	Dr. Alexander Isaev (VNIIFTRI)
3.4	Supplementary comparison COOMET 790/TR/19 "Sound calibrators"	Dr. Enver Sadikoglu (TÜBİTAK UME)
3.5	Key COOMET comparison 846/RU/21 «Regional key comparison in the field of ultrasound power measurement in water»	Dr. Enver Sadikoglu (TÜBİTAK UME)
4	Proposals to the COOMET Program of Comparisons	TC members
5	Information on the decisions of the COOMET Committee and the Presidential Council	Head of COOMET Secretariat
6	Information report on the decisions of the 21st meeting of the Joint Committee for COOMET Measurement Standards and discussion of issues related to the decisions taken	
6.1	On the possibility and necessity of developing of typical calibration procedures within the TC	Deputy TC Chair
6.2	Discussion of issues of digitalization in the field of metrology, relevant for the field of AUV	TC Chair
7	On the implementation of the CIPM MRA	
7.1	Consideration of issues of intra- and interregional CMC review on the KCDB 2.0 platform and participation of TC experts in other RMOs CMC review	TC Chair
7.2	Analysis of the state of comparisons lasting more than 5 years	Deputy TC Chair
7.3	Updating the lists of technical experts for CMC review and QMS peer review	Deputy TC Chair
8	Information about regular meetings of the CCAUV working groups Information about EURAMET TC AUV activities	Dr. Enver Sadikoglu (TÜBİTAK UME)
9	On the implementation of the activities of the Plan for cooperation between COOMET and EURAMET for 2021 and on proposals for the Plan for 2022.	TC Chair
10	Discussion of the state and prospects for preparation of new CMC entries in the «AUV» field by COOMET NMIs according to the results of completed and published comparisons	TC Chair, TC members
№	Issue	Speaker
11	Organizational matters	
11.1	Information on changes in the composition of the TC	TC Chair, TC members
11.2	Discussion of update of the Regulation on the TC taking into account Document COOMET D5: 2021 " Model Regulations for COOMET Structural Bodies "	TC Chair, TC members

12	Miscellaneous issues	
12.1	Information about the venue and date of the next TC 1.2 meeting	
12.2	Discussion of the meeting results, draft resolution	

Main resolutions based on the results of the meeting

Under item 2 of the agenda — to adopt the report of the TC Chair on the TC activities for the year.

Under item 3 of the agenda:

To continue works on the following current COOMET comparisons:

- Pilot COOMET comparison 706/RU/16 "Comparison of the results of measurements of the propagation velocity of longitudinal ultrasonic waves in solid media": to prepare and submit to the COOMET Secretariat a form of the completed project by 10.11.2021; to publish the final report.
- Supplementary comparison COOMET.AUV.A-S3 (COOMET project 757/RU/18 «Comparisons of national measurement standards of the sound pressure unit in air in the infrasound frequency range from 0,1 to 100 Hz») and pilot comparison 786/RU/19 «Comparisons of the results of amplitude and phase calibrations of hydrophones in the frequency range from 10 kHz to 500 kHz»: to continue works according to the updated schedule of comparisons;
- Supplementary comparison COOMET 790/TR/19 "Calibration of sound calibrators": the coordinator of the comparisons shall complete the agreement of the technical report with the CCAUV Working Group on key comparisons and update the schedule of comparisons;
- Key comparison COOMET 846/RU/21 "Regional key comparisons in the field of ultrasound power measurement in water": the coordinator of the comparisons shall continue preparation of the technical report of the comparisons.

Under item 4 of the agenda:

The following proposals were made to the COOMET Program of Comparisons

- Comparison of calibrations of tone audiometers
Representatives of VNIIFTRI were suggested to consider the possibility of accepting the status of the pilot laboratory, as well as to agree technical details of the comparisons with the participants by the end of year 2021.
- Comparison of calibrations of ear simulators and calibrations of mechanical couplers
NMIs of Russia, China, Turkey and Ukraine expressed their interest in the projects. The stakeholders expressed a wish to further discuss technical and other aspects of the proposed comparison during an online meeting and based on the discussion to make a decision on the organization of the comparisons. To request the TC Chair to take part in the discussion.
- Comparison of calibrations of standard microphones
The representative of VNIIFTRI (Russia) suggested draft comparisons of calibrations of standard microphones based on the results of key comparisons CCAUV.A-K6 (the comparisons are at the stage of publication of the final report).
Following the publication of the final report on CCAUV.A-K6 Dr. Enver Sadikoglu, as requested, should analyze the opportunity of conducting the mentioned key COOMET comparisons with possible involvement of NMIs of other RMOs and inform TC members at the next meeting.

- Supplementary COOMET comparisons in the field of vibration based on the results of key comparisons CCAUV.V-K5 (the comparisons are at the stage of publication of the final report):
The stakeholders were suggested to analyze the results of CCAUV.V-K5 and to discuss the possibility of conducting supplementary COOMET comparisons based on the results of the analysis at the next TC meeting.
- Comparison of measurement standards for low-frequency vibration:
The participants addressed a request to the representative of the NMI of China to submit information about the results of the research work performed in the field of low-frequency vibration, after that the stakeholders (China, Ukraine, Turkey, Russia) were invited to discuss the possibility of conducting COOMET comparisons in that field within an online meeting.

Under items 5 and 6 of the agenda:

According to the discussion of the resolutions, adopted at the meetings of the Joint Committee for Measurement Standards, COOMET Committee, COOMET Presidential Council, TC members were requested:

- to prepare proposals on the development of model calibration procedures by 01.12.2021 to assist countries with emerging metrology systems;
- to prepare a list of issues to be elaborated under COOMET project 825/BY/21 "Development of a COOMET concept for digitalization in metrology" by 15.12.2021 and to request the TC Chair to submit those proposals to the Chair of the WG for project 825/BY/21.

Under item 7 of the agenda:

According to the discussion of the issues related to the implementation of the CIPM MRA:

- the NMIs, represented in the TC, were requested to elaborate the issue of nomination of authorized technical experts, whose tasks will include CMC preparation and review under the KCDB 2.0 platform;
- sending of an official letter to the Director of VNIIM (pilot laboratory) on behalf of the COOMET President should be approved, requesting to assist in completing key comparisons COOMET.AUV.V-K1 as soon as possible.

Under item 8 of the agenda:

Based on the report it was decided to request Dr. Enver Sadikoglu to submit further information on the EURAMET projects, which arose great interest among the participants.

Under item 11 of the agenda:

Based on the discussion of update of the Regulation on the TC in view of COOMET Document D5:2021 "Model Regulation for COOMET Structural bodies" it was suggested that:

- TC members representing Azerbaijan, Armenia, Bulgaria, DPRK, Tajikistan and Romania should be given the status of observers given their non-participation in the TC activities for over three years in a row, in order to optimize the work of the TC.
- the COOMET Committee should be requested to consider the possibility of making amendments to COOMET D5:2021, namely to introduce a status of the "CSB member" in addition to the status of the "CSB member from the country". This addition results from the need of participation of several representatives of one country in all subject fields (acoustic, vibration, ultrasound, underwater acoustics)

on an ongoing basis in order to ensure effective operation of the TC. The TC Chair should send a formal request to the COOMET Secretariat by 15.11.2021 at the latest.

- the TC 1.2 Chair should organize review of the updated Regulation on TC 1.2 by 15.12.2021.

During consideration of organizational issues, TC members were informed about some changes in TC members:

- Anatoly Konkov resigns as coordinator in the field of air acoustics owing to his retirement;
- Anatoly Volodchenko resigns as TC Chair, since he is leaving BelGIM. After preliminary discussion among the meeting participants, the candidacy of the TC member from Ukraine, Aleksandr Kosterov, was suggested for the position of the TC Chair. Given that not all TC members were present at the meeting, the deadline was set (03.11.2021) for submitting other proposals to the COOMET Secretariat (cc to the TC 1.2 Chair) on possible candidates for the position of the TC 1.2 Chair. The COOMET Secretariat will further organize e-voting on the issue of electing a new TC 1.2 Chair among all TC members. The voting results will be submitted for review of the COOMET Presidential Council and approval of the COOMET Committee. To request TC members to vote on the candidacy of the future TC Chair by 12.11.2021.

Under item 12 of the agenda:

- The TC Chair was requested to address the COOMET President asking to send a letter of gratitude to the TC coordinator in the field of air acoustic, Dr. Anatoly Konkov (VNIIFTRI) for many years of his work and a great contribution to the operation of COOMET TC 1.2 since its establishment.
- TC members expressed gratitude to the TC coordinator in the field of underwater acoustics Dr. Aleksandr Isaev for the reports about the relevant scientific developments in the field of underwater acoustics.
- The next COOMET TC 1.2 meeting is scheduled for September 2020. In view of the uncertain situation with the Covid-19 pandemic, it was suggested to appoint the venue of the next meeting in a due course.

Anatoly Volodchenko

COOMET TC 1.2 Chair

Valentina Pozdeeva

COOMET TC 1.2 Deputy Chair