



**PROTOCOL**  
**13<sup>th</sup> Meeting of Technical Committee 1.11**  
**«Time and Frequency»**  
**November 27, 2020, on-line**

The 13th online meeting Of the technical Committee 1.11 of COOMET "Time and frequency" was held November 27, 2020 using the Zoom platform.

List of representatives of member countries

№ п/п	Country	Representative	Organization
1	Azerbaijan	Zeynalov Maarif <a href="mailto:m.zeynalov@metrology.az">m.zeynalov@metrology.az</a>	AzMI
2	Belarus	Liakhova Nadezhda, Head of COOMET Secretariat	BelGIM
3		Volynets Aleksey volynets@belgim.by	
4		Takun Elena	
2	Germany	Bauch Andreas <a href="mailto:Andreas.Bauch@ptb.de">Andreas.Bauch@ptb.de</a>	PTB
3	Kazakhstan	Smagulov Sultanbek smagulov@kazinmetr.kz	KazInMetr
5	Lithuania	Mishkinis Rimantas Rimantas.miskinis@ftmc.lt	FTMC
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8		Zharikov Andrey a.zharikov@mail.ru	
9	Slovakia	Sluciak Jurai <a href="mailto:sluciak@smu.gov.sk">sluciak@smu.gov.sk</a>	SMU
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11	Uzbekistan	Gazieva Lubov <a href="mailto:apple-4@mail.ru">apple-4@mail.ru</a>	UzNIM
12	Ukraine	Soldatov Volodimir <a href="mailto:time.metrology@ukr.net">time.metrology@ukr.net</a>	NSC IM

The following agenda was adopted:

N	Question	Speaker
1.	Report on the activities of TC 1.11 in 2019-2020	<i>V. Palchikov, TC Chairman</i>
2.	Review communication on the decisions of the 18 <sup>th</sup> and 19 <sup>th</sup> meetings of the Joint Committee for COOMET Measurement Standards	<i>A. Zharikov, Secretary of TC</i>
2.1.	Updating COOMET publications in the field of TC 1.11 activities	
2.2.	On the implementation of COOMET project 812 / RU / 20 "Development of a COOMET Recommendation on ensuring the traceability of measurement results / standards in COOMET" in terms of monitoring the traceability of COOMET national measurement standards and the need to develop methods for transferring units of quantities within TC 1.11	
2.3.	On the implementation of the Plan for cooperation between COOMET and EURAMET for 2020, as well as discussion of TC 1.11 proposals on possible joint projects for 2021	
3.	On the decisions of the 30th meeting of the COOMET Committee and the activities envisaged by the COOMET Strategy for 2020-2025. and the COOMET Development Program for 2020-2022 Discussion of the program by TC members.	<i>N. Liakhova, Head of the COOMET Secretariat</i>
4.	Review communication on the BIPM Webinar	<i>V. Palchikov, TC Chairman</i>
5.	Current COOMET projects in the field of "Time and Frequency" (review, updating)	<i>V. Palchikov, TC Chairman</i>
5.1.	Theme 605/RU/13 «Comparison of time scales of NTP-servers via INTERNET».	
5.2.	Theme 398/RU/07 «Comparisons of National standards of time and frequency with the Russian UTC (SU) scale»	
5.3.	Deletion of theme 17 / RU-a / 92	<i>A. Zharikov, Secretary of TC</i>
5.4.	Deletion of theme 174/RU-a/99	<i>A. Zharikov, Secretary of TC</i>
5.5.	Proposed new themes	<i>V. Palchikov, TC Chairman</i>
6.	Review communication on the international seminar "COOMET tasks in the light of the redefinition of the SI units of measurement". On the COOMET Roadmap for the implementation of decisions related to the redefinition of the basic units of the SI International System of Units	<i>V. Palchikov, TC Chairman</i>
7.	On the implementation of the CIPM MRA Agreement (preparation and examination of CMCs on the KCDB 2.0 platform, analysis of the state of work on comparisons lasting more than 5 years, updating the list of COOMET technical experts for CMC examination, etc.)	<i>V. Palchikov, TC Chairman</i>
8.	Supporting web-site of the TC on the COOMET web-portal <a href="http://www.coomet.net">www.coomet.net</a>	<i>A. Zharikov, Secretary of TC</i>
9.	Organizational issues (updating the composition of the TC, revising the regulations, etc.)	<i>A. Zharikov, Secretary of TC</i>
10.	Lunch break	
11.	Short communications of present state of TF metrology in the COOMET NMIs	<i>TC members or their official representatives</i>

N	Question	Speaker
12.	Other business.	
13.	Date and place of the next Meeting	

## DECISIONS OF THE MEETING

### 1. On point 1:

Take note of the information about the activities of TC 1.11 in 2019-2020.

### 2. On point 2:

1) To take note of the information on the decisions for the 18th and 19th meetings of the Joint Committee for Measurement Standards.

2) To take for appropriated to update in 2021-2022. the previously developed COOMET publications in the field of "Time and Frequency"

- COOMET Recommendation R / TF / 2: 1995 "Interstate Calibration Scheme for Time and Frequency Measuring Instruments";

- Recommendation COOMET R / TF / 3: 1995 "Requirements for time-frequency equipment produced by COOMET member countries, necessary for mutual recognition of the results of national metrological verifications and certifications". To ask the TC Chairperson to appoint coordinators for the revision of each publication and to organize the preparation of the forms of the proposed COOMET topics by 01.07.2021.

3) Members of TC 1.11 until 01.04.2021 to discuss the issue of monitoring the traceability of COOMET national measurement standards and the need to develop methods for transferring units of quantities. The opinion of the TC members is requested to be reflected in the Minutes of the next TC meeting and sent to TC 1.1.

4) Proposals on possible joint projects for the Plan for cooperation between COOMET and EURAMET for 2021 should be sent to COOMET Vice-President P.T. Neyezhnikov (coomet@metrology.kharkov.ua) and / or to the COOMET Secretariat (coomet@belgim.by) until 01.04.2021.

### 3. On point 3:

1) To take note of the information on the decisions for the 30th meeting of the COOMET Committee and the approval of the COOMET Strategy for 2020-2025. and the COOMET Development Program for 2020-2022.

2) To ask TC 1.11 members to study the activities provided by the COOMET Development Program for 2020-2022. in the area of responsibility of the TC, and send proposals to the Chairman of TC 1.11 for their implementation by 01.04.2021.

3) Discuss the issue of implementing the COOMET Development Program for 2020-2022. in the area of responsibility of TC 1.11 at the next TC meeting

### 4. On point 4:

Take note of the BIPM-COOMET KCDB 2.0 Webinar.

### 5. On point 5:

The current state of the COOMET topics, as well as the issues of updating the topics of cooperation and new promising projects were considered.

**5.1 Topic 605 / RU / 13 Comparison of time scales of NTP servers using the INTERNET, coordinator of comparisons S. N. Kagan**

The Chairman of TC 1.11 presented the results of comparison for the countries participating in the project.

Decisions taken:

- Include the laboratory of Institute of Metrology of Bosnia and Herzegovina among the participants of the topic as soon as it is ready for comparisons.
- To complete the registration of comparisons in KCDB and transfer the COOMET project to the level agreed before 01.04.2021.
- Prepare for joint publication in 2021 the results of comparisons in cooperation with the laboratories of NMIs for participating countries.

### **5.2 Topic 398 / RU / 07 Comparisons of national time and frequency standards with the scale of the Russian Federation UTC (SU), coordinator of comparisons VG Palchikov.**

The Chairman of TC 1.11 presented the results of the comparison of the countries participating in the project.

Decisions taken:

- To complete the registration of comparisons in KCDB and transfer the COOMET project to the level agreed before 01.03.2021.
- Consider it expedient to publish the results of comparisons of national time and frequency standards in an international peer-reviewed journal.

### **5.3 Topic 17 / RU-a / 92 Research of cesium frequency reference standards.**

#### **Study of cesium frequency references standards included in national standards in order to improve their accuracy**

Decisions taken:

- To exclude the topic from the COOMET Work Program due to the loss of relevance.

### **5.4 Topic 174 / RU-a / 99 State of the reference base of COOMET member countries in the field of time and frequency**

Decisions taken:

- To be excluded from the COOMET Work Program in connection with the exchange of information on the reference base of the COOMET member countries within the framework of TC 1.11 on permanent basis.

### **5.5 Proposed new themes**

The meeting participants exchanged views on new promising projects under TC 1.11

Decisions taken:

- To ask TC 1.11 members to send to TC 1.11 Chairman information on the interest of their NMIs in comparisons via fiber-optic communication links before 01.06.2021. The terms and conditions of the comparisons shall be discussed at the next TC meeting.
- To ask the TC 1.11 Secretariat to organize among the TC 1.11 members a discussion of the issue of comparing the results of measurements of delays in cables of fiber-optic communication links; information on the results obtained should be presented at the next meeting of the TC.

### **6. On point 6:**

To take note of the information about the international seminar "COOMET Tasks in the Light of the Redefinition of the SI International System of Units" and the approval by the COOMET Committee in 2020 of the document "COOMET Roadmap for the Implementation of Decisions Related to Redefining the Basic Units of the SI International System of Units".

### **7. On point 7:**

Decision:

- To mark the unsatisfactory state of the CMC examinations for the past period.
- Note that comparisons on theme 398 / RU / 07 "Comparisons of national time and frequency

standards with the RF UTC (SU) scale" have the status of permanent work and do not fall under the JCRB requirement to complete comparisons lasting more than 5 years.

- To ask the Chairperson of TC 1.11 to send to the COOMET Secretariat proposals on updating the list of technical experts on CMC expertise before 01.05.2021.

- To draw the attention of COOMET NMIs to the need for self-registration of interested specialists of institutes in KCDB in the status of "Compiler of CMC" and "Pilot of comparisons" and ask to complete this registration no later than 01.05.2021.

- To ask the Chairperson of TC 1.11 to assign in KCDB the status "Technical expert on CMC examination" to COOMET NMI specialists, indicated in the list of COOMET technical experts on CMC examination, for the effective organization of work on intra- and interregional CMC examination.

**8. On point 8:**

- To take note of the information of the COOMET Secretariat about the planned online training of online editors of TC pages on the COOMET portal [www.coomet.net](http://www.coomet.net) in March-April 2021.

- To ask the Secretary of TC 1.11 to take part in this online training.

**9. On point 9:**

Decisions taken:

- To take note of the information on changes in the composition of TC 1.11 and the publication of this information on the TC page on the COOMET portal ([www.coomet.net](http://www.coomet.net));

- In 2021, update the COOMET Document D5.11 / 2006 "Regulations on the Technical Committee" Time and Frequency "(TC 1.11), taking into account the requirements of the COOMET Document D5 / 2020" Model Regulations on the COOMET Structural Body".

**10. On point 11:**

Take note of the information of TC 1.11 members on the current state of time and frequency metrology in NMI

**11. On point 13:**

Decisions taken:

- The 13th meeting should be held in October 2021 (the venue or the online format of the event should be agreed in a working order, taking into account the development of the situation with the Covid-19 pandemic).

- Inform TC members about the time and place / format of the meeting no later than 3 months before the appointed date.

Chairman of TC 1.11



V. Palchikov

Executive Secretary of TC 1.11



A. Zharikov