

CCT WG NCTh meeting

Chair: Graham Machin

Attendees: Eric van der Ham (NMIA), Dave Lowe (NPL), Xiaofeng Lu (NIM), Maria-Jose Martin (CEM), Ingmar Mueller (PTB), Humbert Nasibli (UME), Mohamed Sadli (LNE, CNAM), Peter Saunders (MSL), Andrew Todd (NRC), Wang Li (NMC, A*STAR), Fan Yan (NMC A*STAR), Howard Yoon (NIST)

Apologies: Pieter Bloembergen (retired), Daniel Cardena (CENAM), Efrim Ejigu (NMISA), Ferruccio Girard (INRIM), Lenka Křazovická (CMI), Mikhail Matveyev (VNIIM), Helen McEvoy (NPL), Nao Sasajima (NMIJ), Ricardo Sohn (INMETRO), Stephane Solve (BIPM)

Date: 3 April 2023

Time: 16:00 – 17:45

Introduction

GM opened the meeting and welcomed the participants. The participants then introduced themselves and the reason why they were participating in the meeting.

Review the activity of the TG BTM (GM)

GM reviewed the activities of the TG BTM which was initiated in response to the COVID-19 pandemic and the poor state of non-contact body temperature measurement. Long and short guides for ear and forehead thermometry have been produced and a guide for fever screening by thermal imaging – these are all available for free download from the guides section of the CCT website. In addition, members of the TG (especially WL) are active in standards committees seeking to improve the clinical thermometer standards. Finally, a key comparison for body temperature calibrator comparison led by (XL) was described. The protocol has been agreed by the CCT WG for KC and will begin in Spring 2023 with the intention of completing the measurements and preparing the draft A report by end 2024. In consultation with the President of CCT the TG was deemed to have completed its work and it has been closed. The on-going comparison of body temperature calibrators is under the supervision of the whole working group.

key comparison above the Ag point towards completion

HCM recorded a presentation explaining the progress of KC10. She described the results and reporting and explained that the draft B report has now been accepted by the CCT WG KC and a report suitable for publication is being prepared.

The CCT WG records its sincere gratitude to HCM who has led the comparison to a successful conclusion despite the many hurdles that the comparison encountered.

Recent activity in HTFPs

MS gave an overview of the work in HTFPs especially in the framework of the European project Realising the redefined kelvin. He explained that the project had successfully determined low uncertainty thermodynamic temperatures for four more HTFPs namely Fe-C, Pd-C, Ru-C and WC-C. A paper will be published in the ITS-10 proceedings describing how these were obtained. Currently only provisional values are available but in a few months definitive values will be released. It is hoped that the definitive values will be incorporated within the MeP-K-19 annex before the end of 2023.

MS also introduced the European project MultiFixRad which will spin-out HTFP construction and use technology to a wider number of European NMIs. This project is coordinated by JV, Norway.

Progress with the non-contact thermometry guide

MS updated the WG on progress with the non-contact thermometry guide. Several issues have prevented significant progress in the last number of months but it is hoped that a first draft will be available for WG review by the next CCT in May 2024.

WG input into the Digitalisation activities of CCT including of the MeP-K-19

MS and GM briefly explained that the TG for Digitalisation had met earlier in the day. The MeP-K-19 was currently being modified by the group to make it compatible with the needs of digitalisation. This did not constitute a revision of the MeP-K-19 and it is likely it will be designated MeP-K-19d to indicate it was the digital version of the MeP-K. The modified version will be reviewed and accepted by the WG for CT and NCT (and possibly the whole CCT) before it is issued.

T measurements below the Ag point (and any $T-T_{90}$ by non-contact thermometry)

A discussion was had about the need for thermodynamic temperature measurements below the Ag point. This is certainly needed but it was agreed it was difficult. It had been attempted as part of the European InK2 project but the results were disappointing. It was agreed that this would be worth a longer discussion at a future working group.

AoB

- A) EvdH APMP introduced the COVID-19 project initiative “Establish and validate national capabilities to support the growth in use of thermal imagers for public thermal screening”
- B) GM reminded participants that there would be a CCT meeting in 2024 and that he would be happy to receive proposals for discussion at the next meeting. One is a short workshop on thermodynamic temperature measurements below the Ag point by primary radiometry. [Others will be: an update of the KC of body temperature calibrators, progress on the non-contact thermometer guide and definitive HTFP values for the MeP-K-19 annex.]

The meeting closed at 17:45 and GM agreed to circulate minutes to the WG and to arrange for upload of any presentations he received from the participants.