



INTERNATIONAL  
COMMITTEE *on*  
ELECTROMAGNETIC  
SAFETY

*Sub-Committee 1 Minutes January 2020*

IEEE/ICES TC95 Subcommittee 1  
Techniques, Procedures, Instrumentation and Computation  
0900 – 1200 h: 21 January 2020  
Plantation, FL USA

**1. Call to order**

Subcommittee 1 on Techniques, Procedures, Instrumentation and Computation meeting convened 0830 am on 21 January 2020 in Plantation, FL. The meeting was called to order by SC-1 Co-Chair, Frank Colville.

**2. Welcome and introductions**

The meeting convened by circulating an attendance list. Each of the attendees introduced her/himself. 30 members attended the meeting, including 1 remotely.

**3. Modifications and approval of agenda**

The draft SC-1 agenda was proposed and accepted by the committee on a motion from Niels Kuster and seconded from Paul Krebs.

**4. Approval of the August 2019 SC1 meeting minutes**

August 2019 SC1 meeting minutes were accepted on a motion from Marv Ziskin and seconded by Marv Wessel.

**5. Call for Patents**

No essential patent claims were recorded.

**6. Old Business:**

a) **C95.3 PAR Status Update.** The SC-1 Chair provided a C95.3 PAR Status and NesCom Update presentation. On 7-Nov-2019, the IEEE-SA Standards Board conditionally approved the extension request for the above referenced project. Approval was contingent upon receipt by staff of a timeline/action plan by the January NesCom meeting. A PC95.3 Timeline/Action Plan was submitted on 3 Dec 2019. A decision is expected at the end of January 2020.

b) **PC95.3 Working Draft Timeline.** The SC-1 Chair provided a timeline presentation that outlined the various steps required to meet the publication date. The document should be ready for SC1 comments by June 3 of 2020 in order to meet publication timeline.

c) **PC95.3 Editorial Working Group Updates.** Peter Zollman presented an update of what the EWG has been doing since the summer 2019 meeting, and the new details of their efforts.



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## 7. New Business:

Matt Butcher led a discussion, “Next Steps Session” for C95.3.

- a) The purpose and outline and description of Best Practices was presented.
- b) Peter Zollman described the level of detail for the new document. There was discussion about the contents of the new document and the overall goals of that document. There was general support for the new approach.
- c) Kevin Graf made a presentation on the dispensation of IEEE 1640 content about Quasi-static fields that was folded into C95.3.1-2010. Pat Roder agreed to check to see the status of IEEE 1308 and if it will be reaffirmed.
- d) Ric Tell made a presentation about spatial averaging and brought up questions about the spatial averaging area above and below 6 GHz.
- e) Ric Tell also made a presentation about the Near field estimation on aperture types of antennas where  $4P/A$  may not reflect the actual maximum power density in the near field of non-uniformly illuminated antennas. In the discussion further information was provided by Antonio Faraone relating to using the effective area to compute a higher power density.
- f) Niels Kuster proposed including a description in principle of an intermediate analysis approach to determine if the DRL is exceeded in the event that the ERL metric is exceeded without the need for an advanced DRL assessment.
- g) Several SC1 members agreed to contribute to or support the revision, including Niels Kuster on Computation and Field Probes, Bob Johnson on measurement, Ric Tell, Auke Visser, and Peter Zollman on Parabolic Antennas, and Rob Kavet on ELF simple calculations.
- h) Epithelial Power Density computation was discussed. Niels Kuster indicated that a factor of 1 from incident plane wave is conservative, more accurate transmission factors are under study, and Near Field exposures require advanced techniques.
- i) More discussion ensued on the contents and goals of the new standard as well as what might be included. Requests were made for more people to participate in the development of the measurement annexes.

## 8. Time and Place of Next Meeting:

Next meeting will be in Newbury, UK – June 18-20, 2020.

## 9. Adjourn

Don Haes made the motion to adjourn at 11:45 am and Paul Krebs seconded. The co-chair adjourned the SC-1 meeting at 11:45 am.

*\*Participants have a duty to inform the IEEE of holders of essential patent claims if they or their affiliations hold such claims. Check the web link on the agenda for more details. If anyone in this meeting is personally aware of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please speak to the committee chair today.*



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