

C63®

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Accredited Standards Committee C63®

Electromagnetic Compatibility

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Secretariat: Institute of Electrical and Electronics Engineers, Inc.

NEWSLETTER

Issue 36 January 2014

WISHING ALL A HAPPY AND PROSPEROUS NEW YEAR!

MESSAGE FROM THE CHAIR

Daniel D. Hoolihan, Chairman ANSI-ASC C63®

The series of meetings of C63 which are held approximately every six months were held in November at UL LLC's operations in Northbrook, Illinois. The meetings started on Monday, November 11th, and continued through Thursday, November 14th.

The weather was unseasonably cool but the meetings room were warm, well-lighted, and the UL welcoming hospitality was friendly and responsive as evidenced by the efforts of our co-hosts, Bob DeLisi and Tim Fitzjarrald. In addition, the food at lunch-time and the refreshments throughout the day were outstanding! My thanks is extended to UL LLC on behalf of the Committee members for their outstanding job of hosting us for the November meetings!

The meetings were well-attended from the Working Groups on Monday and Tuesday to the Subcommittees on Tuesday and Wednesday to the Main Committee on Thursday. Active participation by the attendees was evident at all the meetings.

We were pleased to announce the release of two newly-revised standards from the Committee;
ANSI C63.10 (*American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices*)

ANSI C63.17 (*American National Standard – Methods of Measurement of the Electromagnetic and Operational Compatibility of Unlicensed Personal Communications Services (UPCS) Devices*)

C63.10 was published on 13 September 2013 and C63.17 was published on 9 October 2013. My congratulations to Art Wall, chair of the C63.10 Working Group, and Steve Berger,

chair of the C63.17 Working Group, as well as all the members of those working groups who worked diligently to produce the final products..



Don Heirman (standing in background near screen) presents tribute to Ralph Showers at C63 meeting. Chairman Dan Hoolihan is in the foreground

A Power-Point presentation on Dr. Shower's life and accomplishments in EMC Standards was given by Don Heirman at the Main Committee meeting on Thursday. The presentation was followed by a "moment of silence" in honor of Dr. Showers

Our next series of meetings will be in Cedar Park, Texas (a suburb of Austin, Texas) where ETS-Lindgren will be our host. The meetings will be held starting Monday, April 28th, and culminating with the Main Committee meeting on Thursday, May 1st. I hope to see you all at the meetings.

I would like to take this opportunity to wish everyone a Healthy and Happy 2014!
Daniel D. Hoolihan, Chairman ANSI-ASC C63®

VICE CHAIR ELECTION

Dan Sigouin was elected Vice-Chair of the Main Committee of ANSI-ASC C63R at the November meeting of the C63 Committee on EMC. Dan Sigouin is with Industry Canada and is well-known in the technical fields of EMC and Telecommunications. We wish him success in his new role as Vice-Chair of the ANSI-ASC C63R on EMC.

MEETING PHOTOGRAPHS

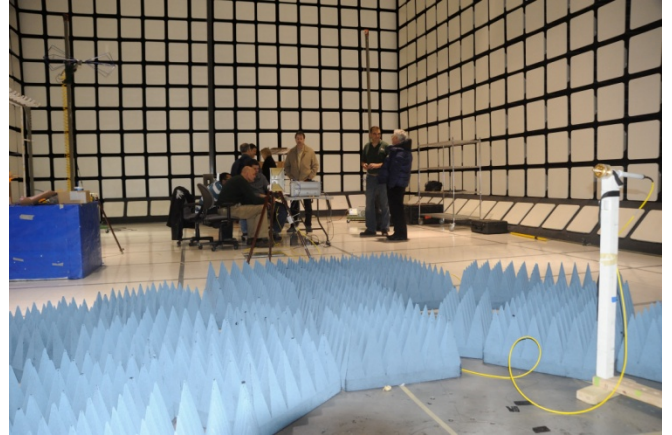
All photos in this newsletter were provided by Jerry Ramie



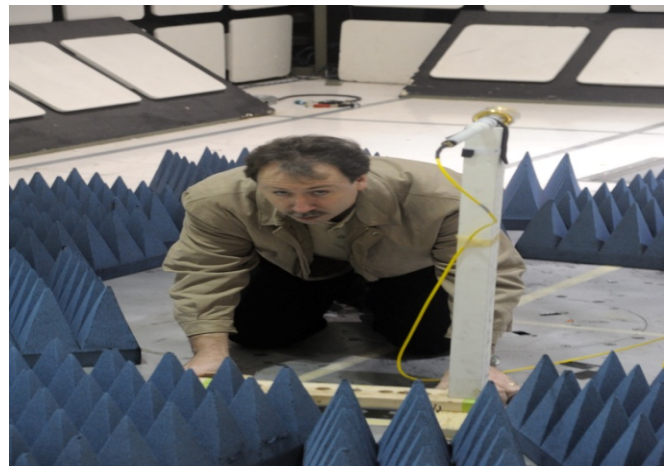
Zhong Chen, SC1 chairman (standing in background) presents his Subcommittee report at the C63 meeting.



At break in C63 meeting, Harry Hodes (left), Ed Hare (center) and chairman Dan Hoolihan have fun discussing Ed's "western garb".



Mike Windler and Dennis Camell (sitting at the test instrumentation in the background) demonstrates test setup for time domain test site validation in UL's semi-anechoic room



Bob Delisi gets "down and dirty" helping set up the Time Domain site validation demonstration at UL's Semi-anechoic room

Subcommittee 1 Techniques and Development

Zhong Chen, Chair



November meeting

SC1 welcomed two new members from the November meeting - Mr. Mits Samota of Liberty Labs Asia, and Mr. Khairul Aidi Zainal of LS Research, LLC. We look forward to their participation and contribution.

Below is the status of the current working groups. Any interested parties wishing to join a working group are encouraged to contact the SC1 chair or the appropriate working group chair as shown below.

Project on Emissions Measurements, C63.4
Chair: Don Heirman



November meeting

Third recirculation ballot was sent to balloting group in August 2013. The ballot closed in September 2013. The ballot met the approval requirements with 73% positive ballots, and 82.6% of the returned votes. There were 4 negative ballots.

The working group met on Monday 11/11/2013 at UL in Northbrook, IL. The comments from the third recirculation

were discussed. Among the items discussed, some were editorial changes. The working group also agreed to defer some items to the future editions (“parking lot items”). The technical comments were discussed at lengths. Andy Griffin and Dan Hoolihan presented data on the balance (symmetry) measurements for hybrid antennas. It was agreed that the test can be an alternative to the hybrid antenna test procedures described in Annex N. Antenna symmetry tests will be included in Annex N as an alternate test method.

Since the ballot successfully passed the requirements, a motion was made at the main committee to request C63.4 final comment resolutions be circulated to the balloting group, and subsequently C63.4 to move to publication. The motion was approved on 11/14/2013 at the main committee meeting. The final comment resolutions have been circulated through email in December, 2013. The C63.4 document is moving ahead to publication.

Congratulations to Don and all members of the working group. We appreciate their hard work, and look forward to the new edition of C63.4.

Project on Antenna Calibration, C63.5
Chair: Dennis Camell



November meeting

This is an active standard that was published in 2006. Since the last C63 meeting in May 2013, the group working prepared a draft standard, which was made available/ready for balloting. Several revisions were processed by the working group. The last revision was version D4.8. IEEE reviewed the draft, and provided editorial comments in August 2013. The draft document was sent to main committee for review in September 2013. Balloting started in October 2013, and ended on November 8, 2013.

The ballot did not pass according to the C63 Operating Procedure, as the majoring of the balloting group did not approve the document. There were 26 people in the ballot pool, and 20 balloters responded within the deadline. Of the 20 responses, there were 6 disapprovals (with comments), 1 abstention, 10 approvals (with comments) and 3 approvals without comments.

The C63.5 working group plans to compile the comments and develop responses. New draft is expected by February 2014. A re-circulation is planned for February of next year.

Project on Standard for Testing Wireless Devices, C63.10/26

Chair: Art Wall



November meeting

The working group met on November 11th and 12th, 2013. There were 28 attendees and 9 observers. C63.10-2013 published on September 13, 2013. The working group reviewed the draft of C63.26-201x. A new draft is to be compiled by the end of January 2014, and balloted within Subcommittee 1. The working group plan to review the voting results and comments at the next meeting in May 2014. A revised PINS were submitted which made changes to terminology in the title (from “for compliance testing of licensed transmitters” to “for compliance testing of transmitters used in licensed radio services”) . The PINS were approved at the main committee meeting on November 14, 2013.

Project on Validation Methods for EMC Radiated Emissions Test Sites, C63.25

Chair: Dennis Camell

This is a draft standard with an active PINS. This project was approved for the development of site requirements for both above and below 1 GHz. Working group made a great deal of progress in developing the time domain (TD) sVSWR method and acquiring measured data to correlate to the CISPR sVSWR results. A test plan was developed, and measurements have been performed at several labs. More labs are participating, and test results are expected in the next month.

The results have shown that the TD sVSWR method can be closely correlated to the CISPR method. The TD sVSWR can be a viable alternative method, which also provides

several added benefits, including faster test time, better repeatability, and the ability to debug chamber anomalies.

Working group member participated live testing using both the TD and CISPR method to measure sVSWR at the UL 10 m anechoic chamber during the evenings of the C63 meetings. Thanks to members of the UL EMC lab for their accommodation and hospitality.

Project on Guide for Construction of Open-Are Test Sites for Performing Radiated Emission Measurements (Free Space OATS), C63.7

New PINS were approved at the C63 meeting in May 2013. A working group is working on a draft version of the standard.

Subcommittee 2 – E3 Terms and Definitions

Marcus Shellman, Chair.

SC2 WG1 continued efforts focused on developing and documenting new and emerging definitions and terminology for use by the ASC C63® Committee, its subcommittees, and EMC standards developers within the DoD. A C63.14 publication schedule was presented to SC2 members to meet the 5 year review cycle for document publication in August 2014. SC2 WG1 presented a review of military EMC standards published in the past 5 years for terms/definitions for possible inclusion into C63.14 Standard for SC2 member discussion at the next meeting. Actions provided to all SC Chairs to provide new terms/definitions in published C63 Standards from 2009 on and draft C63 Standards in revision and expected for publication by Fall 2014.

Committee Members

Marcus Shellman SC2 Chair, DISA/Joint Spectrum Center
 Janet O’Neil SC2 Vice-Chair ETS-Lindgren
 Michael Duncanson SC2 Secretary, URS
 Chris Dilay SC2 Web Coord. SPAWAR SYSCEN
 Dan Hoolihan C63® Chair HoolihanEMC Consulting
 Don Heirman C63® Member DonHeirman Consultants
 Ed Hare C63® Web Master ARRL
 Dennis Camell SC1 Chair NIST
 Poul Andersen SC3 Chair Poul Andersen Consulting
 Steve Whitesell SC5 Chair TIA
 Victor Kuczynski SC6 Chair VICAN Electronics
 Stephen Berger SC7 Chair TEM Consulting
 Bob DeLisi SC8 Chair Underwriters Laboratory
 Bob Hofmann Member Consultant
 Harry Hodes Member ACIL
 Steve Koster Member Washington Laboratories
 Dave Schaefer Member TUV America
 Ralph Showers Member Emeritus Univ. of Pennsylvania
 Joseph Snyder Member Consultant

Subcommittee 3 International Standardization

Poul Andersen, Chair



November meeting

Subcommittee 3 met on November 14. 8 C63® documents were on the agenda for discussion. C63.27 was added to the list at this meeting. The committee is waiting for publication before analyzing 6 documents. The review was completed for C63.23. A motion was past recommending that the C63 main committee recommend to the US TAG for CISPR SC A that the content of C63.23 be proposed for incorporation into CISPR 16.4.2.

WG1 C63.12 update:

- 4 meetings since activity started
- next Webex scheduled for Nov 26th
- Substantial changes have been made – not practical to continue with complete track changes version
- Title changing to: American National Standard Recommended Practice for Electromagnetic Compatibility Limits and Test Levels
- New PINS needed due to title change
- Looking for more current relevant documents – some present documents are 30 years old.

Subcommittee 5 Immunity Testing

Steve Whitesell, Chair

Subcommittee 5 met on November 12th with 11 of its 16 members in attendance along with 6 observers. There was some uncertainty about whether the terms of the leadership team expired at the end of the 2013 calendar year or at the spring 2014 meeting. This was subsequently resolved at the main C63® committee meeting by reaffirming Steve Whitesell as Chair, Ed Hare as Vice Chair, and Jerry Ramey as Secretary for another three-year term.

The reaffirmation ballot for the C63.9 standard on immunity of audio office equipment successfully passed. Comments were received from two voters, one of whom voted approve and one of whom voted disapprove. These individuals will be informed that they may submit a proposal for a new PINS to revise the document if they so choose, but the existing document will have its status updated to reaffirmed.

Steve Whitesell has taken over as Working Group Chair for the C63.16 ESD testing guide. Regular meetings are being held via WebEx every two to three weeks with considerable progress being made on revising the document to provide unique guidance on ESD testing not found elsewhere. A recent contribution from Richard Worley of Dell concerning such things as placing a hand carried item (e.g., laptop or cordless phone) in a docking station is an example of new material being added. The anticipated date for having a document ready to go to ballot is the spring 2014 meeting.

Extensive comments provided by Dave Schaeffer on the initial draft of the C63.24 In Situ EMC Immunity Evaluation standard are being taken into account. Substantial restructuring of the document will be necessary to resolve the comments. A ballot ready version is 6 to 12 months away.

Don Heirman reviewed a draft report he has prepared listing C63® immunity and emissions standards that should be considered for inclusion in the Smart Grid Catalog of Standards. SC5 approved sending this report to the Smart Grid Interoperability Panel (SGIP) Electromagnetic Interoperability Issues (EMII) Working Group.

Jerry Ramie indicated that issues with the C12.1 standard for testing electric meters had been identified by an ad hoc task group he chaired. They were forwarded to the C12.1 writing group and to the SGIP EMII WG in the form of a white paper. Jerry indicated he had also written an article for EMC Magazine reflecting the availability of the report.

Subcommittee 6 Laboratory Accreditation/ Conformity Assessment

Adam Gouker, Chair



November meeting

.ANSI ASC C63R Subcommittee 6 (SC6) on “Accreditation/Conformity Assessment” met on the morning of Wednesday, November 13, 2013 from 8:00 am to 10:00am, at IEEE Headquarters in Piscataway, NJ. The meeting was led by SC6 Chair, Mr. Adam Gouker. No new members have applied to SC6 since the last face to face meeting in May of 2013. Presentations were provided by accreditation body (AB) members A2LA, L-A-B, and NVLAP regarding the current status of their respective conformity assessment programs related to the electrical testing field. Members of SC6 requested that during the next meeting in the spring of 2014, the ABs prepare a list of “top 10 deficiencies” related to C63 standards. The AB members accepted this request and indicated that they will incorporate this information for the next meeting report. In addition to the accreditation body representatives, NACLA was also invited to give an update on the status of their program and related training activities.

Although they were unable to attend in person, the FCC also provided a status report on recent NPRMs and their TCB program. It was noted that several SC6 members had provided comments to the NPRM 13-44, and now eagerly await the FCC’s response to these comments. A second NPRM that may impact C63 members is anticipated to be published in 2014. SC6 members will continue to closely monitor the Federal Register for any additional notices.

The status of working groups 3 and 4 was also presented by the respective working group chairmen. At the May 2013 meeting, a goal of having draft publications ready for this November meeting was set; however that goal has not yet been attained due to lack of resources. The working group rosters were reconfirmed and the SC6 Chair requested the working group chairs to have their respective draft publications ready for the spring 2014 meeting. These draft publications will address Inter-laboratory Comparison of

EMC testing (ANSI C63.11) and Guidance for the Calibration of EMC Test Equipment (ANSI C63.8).

Subcommittee 7 Unlicensed Personal Communications Services Devices

Stephen Berger, Chair

The Subcommittee met for two hours in November during the course of the series of C63@ meetings. The most active project in this subcommittee is C63.27 – *Wireless Coexistence*. AAMI has started a wireless task force and the work will be coordinated with C63.27 for test methods. A presentation by CETECOM was made at the Subcommittee meeting relative to their interest in wireless coexistence. The committee is open for new members.

Discussions relative to C63.17 raised questions about “ultra-low energy” wireless testing. Dan Sigouin from Industry Canada indicated they will adopt C63.17 in its entirety.

Seth Seidman and Bill Young were elected and approved, respectively, as Vice Chair and Secretary of SC-7 pending approval by the Main Committee..

Subcommittee 8 Medical Equipment Testing

Bob DeLisi, Chair



The Subcommittee met on November 13 2013

SC8 membership remains unchanged. There are a total of 27 members.

C63.18 On-site immunity testing of medical equipment – the working group Chair completed review of the of IEEE editors comments. This resulted in 57 comments by the working group Chair which need to be discussed with IEEE

editors. Once the comments are resolved the document will be submitted for a 3-week recirculation ballot for IEEE BSR9 approval. Publication planned for early 2014

WG-2 C63.19 Hearing Aid compatibility – The working group Chair reported that the issues remain active with developments in both the hearing aid and phone communities. The hearing aid community would like one “world wide” immunity test procedure and improved test repeatability.

The IEC committee is revising the corresponding IEC standard and when they finish their work they would like to explore any differences in test methods with C63.19 and look at the possibility of a harmonize test procedure.

The industry has been conducting round-robin tests and evaluating variations in the test procedure to improve test repeatability.

There is work going on at Galludet University, in cooperation with the FDA, on improving test repeatability and understanding the correlation between test results and field performance. The work will be also studying a more uniform method of testing immunity in GTEMs.

ETSI is developing a standard on phone hearing aid compatibility (HAC). The draft quotes C63.19 heavily. The WG recommends, in the future, ANSI ASC C63 and ETSI explore the potential for a co-published standard instead of having 2 standards.

Liaison reports were provided by the FDA, IEC SC62A MT 23 and AAMI liaison representatives. The FDA reported that they continue to work on the 4th edition of IEC 60601-1-2 and C63.18. The FDA has released or drafted the following guidance documents:

- Wireless Technology in Medical devices – Final posted August 13, 2013
- Content of Premarket Submissions for Management of Cybersecurity in Medical Devices - Draft posted June 14, 2013
- Design Considerations for Devices Intended for Home Use – Under final development
- Mobile Medical Applications - Final posted August 13, 2013

The FDA is participating on AAMI Wireless Strategy Task Force and there will be coordination with ASC C63 Subcommittee 7 (wireless coexisting) working group. They are also working on Ed. 2 of ISO/TS 10974, Assessment of the safety of magnetic resonance imaging for patients with an active implantable medical device.

Subcommittee 8 also recognized that Jeff Silberberg, SC8 member, was recently recognized for work on 60601-1-2 and received the IEC1906 award.

The IEC SC62A MT 23 liaison report indicated that the Draft IEC 60601-1-2 4th Edition is waiting for IEC editor. The group is hoping that the document will go to ballot in approximately 2 months with publication in early 2014.

The AAMI liaison report noted that AAMI and the FDA held a Summit on Healthcare Technology in Nonclinical Settings in October of this year. Topics included IEC 60601-1-2 draft Edition 4 immunity test levels for the Home Healthcare Environment.

FIRST 2014 ANSI ASC C63[®] **MEETING SERIES**

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