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UNAPPROVED MINUTES

**EMC Society Standards Development Committee (SDCom) Annual Meeting
Monday, 9 August 2004, 8:00-10:00 AM (Part I)
Santa Clara Convention Center, Room 203
Santa Clara, CA**

Attendees:

Stephen Berger, Chair
Donald Heirman
Donald Sweeney
Elya Joffe
Andrew Drozd
Edwin Bronaugh
John Kramer
Nigel Carter
Dan Hoolihan
Risaburo Sato
Perry Wilson
Fred Heather - guest
Bob Hofmann - guest
Dale Svetanoff – guest
Warren Kesselman – guest
Kazumasa Taira – guest
Kermit Phipps - guest

Members Absent:

David Traver
Ralph Showers
Werner Schaefer
Kimball Williams
David Staggs

Agenda (Part I):

1. Call to Order

Chair Stephen Berger welcomed the attendees. A total of 11 out of 16 active SDCom members for 2004 were present.

2. Introductions and Approval of Agenda

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The attendees introduced themselves. A motion to approve the agenda (attached) was made by Don Heirman and seconded. The agenda was approved as amended.

Fred Heather inquired as to why his PAR on standardizing EMI certification methods for line replaceable modules (LRMs) has not been included on recent agendas. This topic has to do with developing methods for characterizing EMI at the rack-module level as opposed to the unit equipment level. For instance, EMI concerns within military aircraft are now migrating down to rack-mounted modules that have various functions. This PAR will address how one performs an EMI measurement in the event that a single module needs to be changed, instead of retesting the entire setup. The general concept would apply test methods similar to those in MIL-STD-461 where the levels would be relaxed to represent the effect of changing only a portion of the system. Mr. Heather mentioned that the telephone and automotive industries have the same problem in that they cannot afford to test every configuration and mode in its entirety when only a small portion of the system has been modified. The use of similarity analysis, technical construction files; standard vs. recommended practice, and comparable SAE standards were discussed.

Mr. Berger found the unapproved PAR that was previously submitted on this topic and **a motion was made by Mr. Heather** and seconded to distribute the draft PAR form to the SDCOM for internal review, initiate a study project on modular testing, and then formally submit the PAR upon its approval by the committee within a few days of this meeting. The motion passed.

3. Review and Approval of Minutes of Previous Meeting Minutes

A motion was made by Andy Drozd to approve the minutes of the SDCOM meeting at the IEEE Operations Center in Piscataway, NJ on 10 May 2004. The Secretary previously distributed the minutes by email to the Committee for review. The motion was seconded and passed.

4. New Initiatives

4.1 GTEM Study Project & User Group

Mr. Berger mentioned that the level of interest in this topic has increased over the last 2-3 months.

4.1.1 Activities & Goals

A meeting was scheduled on Wednesday, 12 August at the Westin Hotel in Santa Clara from 12:00-300 pm to discuss the direction of the GTEM Study Project. The intent here is to provide a host organization for those interested in this technology, and effectively handing over responsibility to another standards body for pursuing GTEM testing above 1 GHz to complement the C63.4 revision work that is currently underway on this topic (POC: Tim Harrington/FCC). Mr. Berger noted that Matt Aschenberg has prepared draft language on how to validate a TEM cell above 1 GHz, which is being circulated for comment back to the GTEM user group.

Perry Wilson described the present thrust on applying correlation and analysis techniques using ideal dipole models and sources, and then coming up with correlation algorithms. He emphasized that these are idealized conditions i.e., not reflecting the real world. Consequently, a “conundrum” exists regarding the application of dipole-based models. Mr. Wilson noted that instead of trying to model a source or receiver dipole in the GTEM case, that one could model the GTEM as an antenna, generate an antenna factor and essentially treat the problem as one of antenna radiation and coupling. Above 1 GHz, the idea is to focus on optimizing each tool, technique, and model rather than being overly caught up in the correlation issue for dipoles. The thrust will be towards developing an independent standard and guiding the selection of the appropriate test method or approach, rather than correlating data as the FCC and product committees would like to do. Mr. Wilson suggested the possibility of correlating limits instead of data on complex objects. Again, the draft paper by Matt Aschenberg was referenced as a guide for proposing how to validate a TEM cell above 1 GHz.

Action item: Elya Joffe to contact members of the European community that may be interested in contributing to the GTEM Study Project and User Group, including those involved in wireless technologies, as may be appropriate.

4.2 Appointment of Leadership

Proposed members for the Study Project were Stephen Berger as Chair, Garth D’Abreu of ETS-Lindgren as Vice Chair, Glen Watkins of ETS-Lindgren as Secretary, Matt Aschenberg as Technical Editor, Perry Wilson as Technical Contributor, and Janet O’Neil as Meeting Coordinator.

As of the time of this report, there has been no further official appointment of leadership, prime hosting, or downstream adoption of the findings of the Study Project under this initiative.

4.3 Wireless Performance Prediction

4.3.1 Status of Joint Effort with IEEE 802

According to Stephen Berger, the IEEE 802.11 project is better suited to the Communications Society. It is concerned with measuring product over-the-air performance and deals largely with networking issues. Presently, the study project appears to have run its course and is in the process of closure.

4.4 Interference Temperature & Cognitive Radio

Two FCC-proposed rule-making actions and a DARPA project are underway to reform the traditional command and control spectrum management and utilization paradigm. The IEEE 802 project group has proposed that this topic be a subset of the current 802.11 work presently underway. We need to consider ways of extending our involvement, contributions, and influence to others in the 802.11 community regarding these technology concerns. Stephen Berger reiterated that the SDCom has a de-facto committee consisting of himself, Don Heirman, Ed Rashba and Andy Drozd following this area of work.

4.4.1 Joint Sponsorship with Communications Society

A draft Memorandum of Agreement (MOA) was voted on and approved to pursue a joint effort with the ComSoc and our committee to develop standards for advanced spectrum management and next generation radio.

4.4.2 Structure & Organization

Mr. Berger met with DARPA and his ComSoc counterpart to discuss the nature of the EMI and communications projects/actions pertaining to interference temperature and cognitive radio. The plan is to create a steering committee that reports back to both societies.

4.4.3 IEEE 802 Efforts

Stephen Berger polled the SDCOM members present regarding their desire to move ahead on a joint sponsorship with the ComSoc and the formation of a steering committee for this topic, as well as the adoption of an entity voting structure as opposed to an individual voting system on the project. Mr. Berger proposed a motion to ‘in principle’ pursue a joint effort with the ComSoc on this project. This was seconded and passed. No PAR has been submitted at the time of this report. The idea is to approach the IEEE 802 project group and discuss the scope and relevant technical issues. Presently, to the best of our knowledge there is no facility for a joint-signature PAR; also, we need to identify a lead/point person for intellectual property reasons. The scope of this project would appear to be beyond that of a Standards Coordinating Committee (SCC) since it will still be considered a single project, despite the joint sponsorship. One approach may be to have one of the entities lead the PAR administrative process while the other entity leads and conducts a complementary study project where the two would closely coordinate their activities. Mr. Berger has been in communications with Paul Nikolich, Chair of the 802 project group regarding this matter.

Another project proposal for 802.22, dealing with non-interference operation within the TV bands is in process for consideration by the NesCom. We have been in discussions again with Paul Nikolich to explore possible solutions to the issues surrounding this project. We agreed in principle to explore two parallel projects. One project would be under the EMC-S and ComSoc and would deal with the metrics, measurements, analysis methods and rules for non-interfering operation. The other project, under IEEE 802, would be for a computer network service that would operate within those rules (i.e., addressing 802 charter: data link standards). But, this would only be the first step.

Specific proposals will be generated for consideration by the various interested parties. Mr. Berger has been encouraged that this approach has a good potential for finding general acceptance and it is believed that Paul Nikolich shares that view. So we will hope to have a joint proposal for NesCom in September.

Mr. Nikolich has suggested that we must take the proposal to our respective committees, get their endorsement, and then jointly engage to ensure both are working on complimentary,

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sensible projects. This can start immediately and Carl Stevens (IEEE 802.18 Radio Regulatory Technical Advisory Group Chair, IEEE 802.18 SG1 Study Group on Unlicensed Use of Unused TV Spectrum Chair, IEEE 802.22 Working Group on Wireless Regional Area Networks Interim Chair, (proposed), Member at Large of the IEEE-USA CCIP, and IEEE Liaison to ITU-R) has been asked to lead the charge on 802's behalf. However, the 802.22 project cannot be guaranteed to operate under the EMC projects rules. The committee may or may not decide to do so, or the rules may or may not be ready in a timely enough fashion.

With a revision to the PAR in mind, an open and ongoing discussion is envisioned between this project and the Communications and EMC Society regarding these issues of interference, how the project proposes to avoid interference to TV broadcasters, and the effectiveness of the remedies proposed. Feedback from the SDCOM members was encouraged to further this activity along.

5. Status of Standards and PARs

Stephen Berger noted that there are currently five standards that are in the stage of being balloted. These and the status of other working group (WG) activities are provided below.

5.1. Standard 376^b – PAR for Revision

Ed Bronaugh presented his report describing the steps to revise this standard by identifying references to obsolete or antiquated technology items and updating these to reflect current methods and technologies. This will require that a new PAR be submitted and approved. There was a discussion on the potential for intellectual property (IP) issues to arise (related to published material by HP, originally written by Lindquist); however, according to Mr. Bronaugh IP issues should be dispelled as the material was published and made available for public distribution. Nonetheless, Werner Schaefer will verify if this is indeed the case. Mr. Bronaugh pointed out that the techniques embodied in the standard are not necessarily all inclusive and may be procedurally or technology limited in certain cases—some circumstances may still prevent an accurate measurement of the impulse bandwidth.

5.2. Practice 473^f

Elya Joffe presented his report on the EM site survey project. Progress is being made and an active WG membership was presented consisting of 22 active participants. This includes at least one new member with expertise and experience in antennas and the use of measurement equipment. Measurement uncertainty is also being addressed. A Technical Editor has been assigned and use is being made of the online template and update procedures. A WG meeting was scheduled for Friday, 13 August. Mr. Joffe established the appropriate coordination with SCC 28 (and 34) and Darren Carpenter. There are no problem areas at present.

5.3. Standard 1560ⁱ

Stephen Berger gave a brief report for Kermit Phipps on the status of the P1560 WG activities. A WG meeting was held on Sunday, 9 August. A draft standard has been prepared and is ready

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to go to ballot. The formation of balloting group to approve the draft is pending. An email-motion was proposed, seconded, and passed by the WG to move ahead on this.

Mr. Phipps afterwards provided an additional report of some related activities. He personally thanked the SDCOM for its support of his WG efforts. He mentioned that IEC/CISPR 17 is also interested in EMI and filter suppression technologies. The standard has been in publication for about 17 years and is up for revision or withdrawal in the near future. Mr. Phipps feels that there is a natural fit between his P1560 work and that of CISPR 17, and he may support revisions of that document after his current term ends as P1560 WG Chair. It is believed that the groundwork for P1560 may be useful in helping that process along. There is an upcoming CISPR 17 meeting in China. The P1560 WG has been invited to participate by email in the CISPR 17 WG efforts to revise the standard. Prof. Akira Sugiura is the point of contact for this and is very involved in this committee's work at the international-level. A natural fit here.

5.4. Standard 1597.1 & Recommended Practice 1597.2^j

Andrew Drozd gave a verbal report on the status of the P1597.1 and P1597.2 WG activities. He gave an overview of the current version of the draft standard. The plan is to go to ballot during October 2004. A balloting group will be formed prior to that. A WG meeting was scheduled for Monday, 9 August. The WG has 12 core members. An IEEE Standards Technical Editor is being sought to help bring the drafts to the next level of refinement. The drafts are currently undergoing an internal WG review. A copy of the draft standard was provided to Stephen Berger.

5.5. Standard 299^e

Dale Svetanoff gave a brief update on the P299 WG's efforts to complete the current round of balloting on the current version of the standard. He thanked Stephen Berger and Don Sweeney for their ongoing support of the project. He also announced that Dr. Sabrina Sarto will be taking over as WG chair after the completion of this round of balloting; however, Mr. Svetanoff plans to remain active on the WG. The changes under review affect the main portion of the standard that address more typical shielded enclosures with thought towards smaller enclosures.

He mentioned that during the 1998-1999 timeframe, the SDCOM directed him to consider physically smaller enclosures leading to .0, .1, .2 to reflect the addition of new parts (.0, .1, and .2) to the standard, including considerations for shielding at the integrated circuit level. It is anticipated that some of the new parts may evolve into guides rather than standards for smaller and smaller enclosures. In fact, Dr. Sarto is investigating issues related to smaller shielded enclosures of varying size.

The revisions to the current document will be presented at the Wednesday, 11 August SDCOM meeting. The formation of a balloting group will be proposed at that time or shortly thereafter. Mr. Svetanoff expects to meet the deadline set by the WG in order to get it to the NesCOM on time.

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Don Heirman stated that a formal agreement has been reached between the IEEE, ANSI, and IEC through the Standardization and Management Board to allow for the use of dual logo branding and numbering system in adopting the 299 standard. This is based on a unanimous GO (“1”) or NOGO (“0”) vote. The IEEE would remain the copyright and intellectual property holder. Mr. Heirman pointed out that any standard of this type we submit for approval cannot already be in mainstream distribution by a technical committee of the IEC such as CISPR. According to Mr. Heirman, we could wait until issues regarding this matter settle out, but the quicker we can act to complete ballot and obtain approval, the quicker he can go to the IEC to settle any unresolved issues related to this process. Mr. Berger added that it can take up to six months for a draft standard to be balloted and for the process to reach completion especially on the first try.

Action item: Stephen Berger asked Dale Svetanoff to make every effort to form the balloting group by Wednesday, 11 August.

6. 9:50 AM: Review of Wednesday Agenda - Meeting Recessed until Wednesday Morning.

Monday, 11 August 2004, 7:00-9:00 AM (Part II)
Santa Clara Convention Center, Room 203
Santa Clara, CA

Attendees:

Stephen Berger, Chair
Donald Heirman
Donald Sweeney
Elya Joffe
Andrew Drozd
Edwin Bronaugh
John Kramer
Nigel Carter
Dan Hoolihan
Risaburo Sato
Fred Heather - guest
Dale Svetanoff – guest
Warren Kesselman – guest
Akira Sugiura – guest
Richard Briet – guest
John Currie – guest
Gerard Wanczyk – guest
Johan Catrysse – guest
Rick Flores – guest
Jacob Gavan – guest
M. Sabrina Sarto – guest

Kermit Phipps – guest
Mark Arthurs - guest

Members Absent:

David Traver
Perry Wilson
Ralph Showers
Werner Schaefer
Kimball Williams
David Staggs

Agenda (Part II):

1. Call to Order

Chair Stephen Berger welcomed the attendees for the second half of the SDCOM annual meeting. A round of introductions was made. A total of 10 out of 16 active SDCOM members for 2004 were present.

2. Status of Standards & PARs

a. Special Topic—Lightning Protection (Added to Agenda)

There was a slight deviation to the schedule of regular presentations to entertain a possible proposed study project on lightning protection. Elya Joffe introduced Dr. Richard Briet to the meeting who wanted to propose a motion to form a study project to investigate the necessity and adequacy of lightning protection codes (standards). Don Heirman asked how this differs from similar product related standards and codes on lightning protection. Mr. Heirman and Don Sweeney suggested that any motion be delayed until a complete presentation could be given to explain the rationale and purpose behind this proposed initiative. No formal motion was made or seconded at that point.

Dr. Briet proceeded to give a presentation on the need for realistic lightning protection standards and practices by first reviewing the history on the subject. Dr. Briet discussed the legacy NFPA 780-2001 standard for the installation of lightning protection systems pointing out that the 780 document does not address the lightning protection issues sufficiently. He recommended the formation of a lightning protection WG to develop a standard that replaces NFPA 780, which was abandoned in 1980, to reduce lightning induced damage and loss of lives. The issue of potential conflict of interest, intellectual property, and information non-disclosure for participating entities and organizations, including the involvement of Dr. Briet's own private company, were discussed. After a lively discussion of the matter, it was concluded that the SDCOM cannot operate in a non-disclosure environment and the pursuit of a formal standardization process would be too premature and risky at that point.

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According to Mr. Heirman, the NFPA has an SCC affiliation within the IEEE and this matter could perhaps be better served under the IEEE Product Safety Engineering Society (PSES). It was also suggested by Mr. Joffe that perhaps TC-5 would be willing to technically support this initiative, but since the proposed topic has a “safety of life” theme, it may not readily be embraced by them. Mr. Heirman stressed the need to disclose patents in accordance with IEEE policy in view of the fact that any standard arising from this initiative will be publicly released and IP patent policy will be enforced. Mr. Berger reminded everyone that one of the requirements of every WG meeting is to have the chair of that WG begin each meeting with a review of the IEEE patent policy and any request for deviations should be expressed in writing at the time of the meeting.

Following Dr. Briet’s presentation, Elya Joffe repeated the motion for the formation of a WG to study the lightning protection standardization issue. This was seconded. The motion to form a study group failed (3 no votes, 3 yes votes, and 4 abstentions). Don Heirman encouraged Mr. Joffe and Dr. Briet to talk to other groups and see if they want to sponsor this topic or if we should reconsider adopting it in the future pending a resolution to the various concerns that were expressed. Mr. Joffe suggested a white paper be prepared that captures the technical issues of this topic including ideas on what could or should be done, and then contact entities that may be potentially interested in supporting this in the future. Stephen Berger said that the white paper and any related voting regarding future reconsideration of the technical scope, direction and position on the matter can be handled electronically. This ended the discussion on the topic.

Action item: Elya Joffe to work with Dr. Richard Briet in preparing a white paper on the technical scope and ramifications of developing a new standard on lightning protection for SDCOM review, and to contact organizations or committees that may be interested in sponsoring this work in the future.

b. Standard 187^d

Mark Arthurs (reporting for David Traver who has since resigned his position as SDCOM Secretary) gave a brief report on the status of the P187 revision. The 187-2003 document was published and the new standard is available. Dave Traver was in the process of giving Jodie Haasz the supporting WG statements that show why the 187 revision should be accepted as an IEEE/IEC dual logo standard. The dual logo standard is expected to save on costs and assist in achieving goals for international harmonization. At the time of this report, some resistance on certain issues has been expressed by the IEC. These are expected to be resolved within approximately three weeks following the date of this report. Due to job commitments, **Mr. Arthurs’** involvement in this standards work is expected to drop off in the future.

c. Standard 299^e (Continued)

Dale Svetanoff and Sabrina Sarto, Co-Chairs of the P299 WG, gave an additional follow-up report (again, Dr. Sarto will assume the chair duties during the period following this meeting and the completion of the upcoming ballot period). Mr. Svetanoff met with Don Sweeney since Monday’s SDCOM meeting to discuss the urgency of revising the 299 standard including a plan and schedule for accomplishing this. Mr. Svetanoff stated that Dr. William Croisant and he will

continue to support the WG through the ballot period and beyond. He reported that there were no blatant technical errors based on a recent review of the current document. Mark Bushnell was identified as the WG Technical Writer who will make any changes necessary to the document. Approximately 23 items needed revision, which were essentially clarifications regarding the accessibility to areas or parts of the structure (shielded enclosure).

Some of other technical issues dealt with methods for computing the shielding effectiveness and using absolute value terms, and determining measurement uncertainty (usable statements on the latter were provided by Don Heirman, but the WG felt these were inadequate as stand-alone text; however, these have been further clarified by Dr. Chris Holloway, Dr. Andy Marvin, and Dr. Sarto). A question on the use of the IEEE's definition of uncertainty was raised. Mr. Berger responded that it is encouraged to use the standard definitions, but these can be tailored to a degree to suit the specific needs of the topic. According to Don Sweeney, the real issue was whether to use the IEEE's or IEC's definition of uncertainty.

Dr. Sarto further addressed issues and proposed changes pertaining to specifying the position of loop antennas in the measurement setup, measuring only one frequency in the resonant frequency range vs. the use of other methods and formulas for selecting test frequencies, and the errors that may arise due to the uncertainty in the approach used. She elaborated on two different approaches for determining the SE for high-Q (sharp resonant peak) enclosures vs. low-Q enclosures. Depending on the size of the enclosure, quality factor, and the test frequency relative to the resonance range, different criteria can be applied in determining the values of SE. First, one can consider +/-10% of the peak with differences in frequency relative to the 3-dB points above or below the peak, which could require more test frequencies for high-Q enclosures to properly capture the resonance effect(s). For high-Q enclosures, the uncertainty in determining the SE values is due to whether the phenomenon is a typical resonance of the enclosure or if oscillatory reflections are at play. For low-Q enclosures, one can sweep in frequencies across a range of interest to arrive at SE values.

Per Mr. Svetanoff, closure on the above issues is expected by the end of the week barring any contentions on the changes proposed (Note: a second P299 WG meeting was scheduled for Friday, 13 August). If there are any lingering issues, these will be dealt with afterwards via a telecon, if needed. The revised document will be sent to Mark Bushnell on Monday, 16 August. He will be given a week to make the final updates and then will coordinate with the IEEE Standards staff to work on forming a balloting group. Mr. Svetanoff expects to be on ballot during the early November timeframe with 30 days to allow for invitations to ballot. The final issue for the Friday P299 WG meeting will be to develop plans to explore issues in 2005 associated with physically smaller enclosures. This means that new PARs and WGs will need to be formed. At least three new parts to the standard are envisioned: (i) 3 m down to 1 m enclosures, (ii) down to 0.1 m enclosures, and (iii) less than 0.1 m enclosures. Dr. Johan Catrysee and Dr. Andy Marvin are interested in exploring these new parts to the standard with a focus on applications such as small shelters, cellular phones, and PCB enclosures with internally-mounted antennas. Dr. Sarto asked that they email their suggestions to her about classifying different measurement techniques for different-sized enclosures. Technical papers and journal articles will also be researched to address the additional small enclosure issues in the future. The strategy will be to start with one new part and see whether it evolves into a standard or a

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recommended practice, said Mr. Svetanoff. The need to do experiments and numerical calculations was also stressed. Dr. Sarto will meet with Dr. Marvin and others involved in this study at EMC Europe 2004 in Eindhoven, The Netherlands to work out a plan towards the future development of add-on parts to the current standard.

Don Sweeney made a motion to start the process of forming the balloting group, which requires approximately 30 days to assemble. This was seconded and the motion passed. Also, Mr. Sweeney made a motion to appoint Dr. Sabrina Sarto as the new Chair of the P299 WG. This was also seconded and passed. Mr. Berger recommended that in addition to a Technical Editor, that a Vice Chair and Secretary be added to the WG.

A copy of the following P299 WG materials (attached) was provided by Mr. Svetanoff:

1. Updated roster
2. Agenda for the Sunday, 8 August meeting
3. Agenda for the Friday, 13 August meeting
4. Meeting notes (not formally approved) of the 8 August meeting (this is what Dale Svetanoff presented to the SDCOM on Wednesday morning, 11 August. Note: the 13 August meeting notes have not been received to date).

Action item: Dale Svetanoff to follow up with Mark Bushnell regarding the implementation of revisions to the current P299 Standard and to coordinate with the IEEE Standards staff by 23 August on the formation of a balloting group.

d. Standard 1302

Chair John Kraemer reported that a P1302 WG meeting was held on Tuesday, 10 August to identify what new should be included on gaskets in the present standard. The draft has been circulated and comments are due by 15 September. Efforts to revise the standard are to be completed by the end of this year. A WG status report is due by the end of August.

Action item: John Kraemer to investigate the voting/balloting procedure and schedule.

e. Standard 1309

John Kraemer reported on the status of the P1309 ballot formation. The form to initiate the ballot on P1309 was completed. The process has automatically moved forward and all those listed on the balloting group for this standard (per the list approved for balance back on 7 July) have been notified that the ballot has been started. There are 21 voters on the balloting group. The breakdown is as follows: 9 users, 3 producers, 6 general interest, and 3 government. The ballot opened on 30 July and closes 29 August. Mr. Kraemer expected a couple of negative ballots. Following a resolution of any negative comments, the draft will be updated and sent out for re-ballot in early October.

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Dr. Nigel Carter then gave an update of the status of the PAR for amendment of 1309. The revisions are meant to restructure the document and make it more of a definitive standard for added user guidance. In the future, a new PAR may be in order on how to calibrate probes.

Action item: John Kraemer to follow up on resolution of any negative ballots and make arrangements for re-ballot, as necessary.

f. Standard 1642

Elya Joffe provided a brief report based on his attendance at the P1642 meeting on Tuesday, 10 August. Dr. William Radasky is the P1642 WG Chair. TC-5 is leading this effort. The WG appears to be making good progress and drafts are due soon for review. The P1642 Secretary will provide a detailed written report.

3. Status of Other Standards

3.1 Standard 139^a – Proposal for Revision

Dan Hoolihan reported that the P139 Standard is coming up on its five-year review cycle. It is uncertain whether the standard should be revised or not. Some of the comments and questions raised by Mr. Hoolihan were as follows:

- Who will lead this effort?
- Based on a review of the documented ISM measurement methods, revising the standard is not recommended as a first option—the wording is outdated and there is no mention of measurement uncertainty.
- If the decision was made to revise or reissue the standard, then now is the time to act on this.

Don Heirman suggested that perhaps someone from the CISPR Technical Activities Group (TAG) Subcommittee B would be willing to take this on. Don Heirman made a motion to prepare the P139 Standard for revision subject to identifying a WG chair and finding out who or what entities are using it. This motion was seconded and passed. According to Mr. Heirman, our decision to move ahead on this has international-level importance, so it is critical that we continue to support this plan.

Action item: Don Heirman to assist in identifying a WG chair for the revision of the P139 Standard from within the CISPR Subcommittee B on ISM.

Note: There were no updated reports for Standards 377, 1128^g, 1140,

4. Old Business

EMC standards that are due for their five-year review by the end of 2004 include:

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139-1988 (R1999) IEEE Recommended Practice for the Measurement of Radio Frequency Emission from Industrial, Scientific, and Medical (ISM) Equipment Installed on User's Premises

Status: Dealt with earlier on agenda.

299-1997 IEEE Standard Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures

{Note: The PAR for revision project P299 is due to expire at the end of 2004. Please contact Jodi Haasz [j.haasz@ieee.org], NesCom Administrator for action on PARs.

Status: Dealt with earlier on agenda.

377-1980 (R1997) IEEE Recommended Practice for Measurement of Spurious Emission from Land-Mobile Communication Transmitters

Status: Reaffirmation ballot in process.

1128-1998 IEEE Recommended Practice for RF Absorber Performance Evaluation in the Range 30 MHz to 5 GHz

Status: Reaffirmation ballot in process. Dealt with in previous Agendas.

1140-1994 (R1999) IEEE Standard for the Measurement of Electric and Magnetic Fields from Video Display Terminals (VDTs) from 5 Hz to 400 kHz

Recommendation: Submit reaffirmation ballot. Dealt with in previous Agendas.

5. New Business

Dale Svetanoff raised concerns over the handling of figures, marking up changes, and submitting revised documents to the IEEE Technical Editor. A universal format and uniform practice of handling figures (e.g., pdf) should be specified and adhered to. Mr. Heirman pointed out that there is general information on the Standards Association web page that covers these requirements and specifications (<http://standards.ieee.org/resources/glance.html>).

There were no other new business items brought up for discussion.

Action item: Stephen Berger to ask the Secretary to contact the IEEE Standards Technical Editing staff to find out which formats are hospitable with *Frame Maker*.

6. Review of Open Action Items

The status of the action items is attached.

7. Upcoming Meeting Schedule

The next meeting of the SDCOM is scheduled on 15 November 2004 from 2:00-4:00 PM in Chicago.

8. Adjournment

The meeting adjourned at 9:00 AM.

Respectfully submitted,

Andrew L. Drozd
Acting Secretary

Information on SDCom Standards:

stds-emc@ieee.org

^a IEEE 139 - IEEE Recommended Practice for the Measurement of Radio Frequency Emission from Industrial, Scientific, and Medical (ISM) Equipment Installed on the Users Premises

^b IEEE 376 - IEEE Standard for the Measurement of Impulse Bandwidth

^c IEEE 1309 - IEEE Standard Method for the Calibration of Electromagnetic Field Sensors and Field Probes, Excluding Antennas, from 9 kHz to 40GHz

^d IEEE 187 - IEEE Standard on Radio Receivers: Open Field Method of Measurement of Spurious Radiation from FM and Television Broadcast Receivers

^e IEEE 299 - IEEE Standard Method of Measuring the Effectiveness of Electromagnetic Shielding Enclosures

^f IEEE 473 - IEEE Practice for an Electromagnetic Site Survey (10 kHz to 10 GHz)

^g IEEE 1128 - IEEE Recommended Practice for RF Absorber Evaluation in the Range of 30MHz to 5GHz

^h IEEE 1302 - Guide for the Electromagnetic Characterization of Conductive Gaskets in the Frequency Range of DC to 18GHz

ⁱ IEEE P1560 - Methods of Measurement of Radio Frequency Interference Filter Suppression Capability in the Range of 100 Hz to 40 GHz

^j IEEE P1597.1 - IEEE Standard for Validation of Computational Electromagnetics (CEM) Computer Modeling and Simulation

^kIEEE P1597.2 - IEEE Recommended Practice for Computational Electromagnetics (CEM) Computer Modeling and Simulation Applications

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SDCom Motions

Dates: 8/9/04 & 8/11/04

* If Show of Hands (SOH), include Yea/Nay Votes.

FINAL WORDING OF MOTION	Made By	Seconded by	Pass/Fail	Method (V/SOH)
Motion to accept agenda as amended.	D. Heirman	A. Drozd	P	V
Motion to distribute the draft PAR form on standardizing EMI certification methods for LRMs to the SDCom for internal review, initiate a study project on modular testing, and then formally submit the PAR upon its approval by the committee within a few days of (this) meeting.	F. Heather	A. Drozd	P	V
Motion to accept minutes of the SDCom meeting at the IEEE Operations Center in Piscataway, NJ on 10 May 2004.	A. Drozd	D. Heirman	P	V
Motion to 'in principle' pursue a joint effort with the ComSoc on IEEE 802 projects related to interference temperature and cognitive radio.	S. Berger	A. Drozd	P	V
Motion for the formation of a WG to study the lightning protection standardization issue.	E. Joffe	D. Sweeney	F	V/SOH 3-No 3-Yes 4 Abstain
Motion to start the process of forming the P299 balloting group, which requires approximately 30 days to assemble.	D. Sweeney	D. Heirman	P	V
Motion to appoint Dr. Sabrina Sarto as the new Chair of the P299 WG.	D. Sweeney	D. Hoolihan	P	V
Motion to prepare the P139 Standard for revision subject to identifying a WG chair and finding out who or what entities are using it.	D. Heirman	D. Hoolihan	P	V

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Summary of Old Action Items

#	Item	Status
1	Action item: Daniel Hoolihan to review 139 as its “angel” and make a recommendation to the SDCOM on action by July 1, 2004.	Completed
2	Action item: Don Heirman to notify Werner and Ed at the SDCOM recommendation for 376 PAR.	Completed
3	Action item: Dave Traver to contact Bill Ash and resolve negatives for STD 377 submission to REVCOM.	Open
4	Action item: Don Heirman to notify proposed new WG committee of SDCOM recommendation for new PAR 1309 and work.	Completed
5	Action item: Dave Traver give Jodie Haasz the supporting WG statements that show why 187 should be accepted as a dual logo standard.	Completed (Some IEC resistance issues – follow-up within the next 3 weeks)
6	Action item: Don Sweeney contact Dale Svetanoff and recover the available draft, WG membership lists, meeting minutes and other documentation for review. Upon review, Don is to make a recommendation on the work if a new WG chair can be identified. If recommended, a PAR extension would be required by SDCOM.	Completed
7	Action item: Elya Joffe – establish appropriate coordination with SCC 28 and Darren Carpenter as suggested.	Completed (Note: SCC 28 & 34 have merged)
8	Action item: Dave Traver work with Bill Ash and Dr. Perini to open a limited PAR to address the comments for improvement received with the re-affirmation ballot.	Open
9	Action item: Stephen Berger –contact IEEE for reaffirmation ballot for 1140.	Completed
10	Action item: Donald Heirman make WG guidance to appropriate support at WG meetings.	Completed

Summary of New Action Items

#	Item	Status
1	Action item: Elya Joffe to contact members of the European community that may be interested in contributing to the GTEM Study Project and User Group, including those involved in wireless technologies, as may be appropriate.	Open
2	Action item: Stephen Berger asked Dale Svetanoff to make every effort to form the balloting group by Wednesday, 11 August.	Completed
3	Action item: Elya Joffe to work with Dr. Richard Briet in preparing a white paper on the technical scope and ramifications of developing a new standard on lightning protection for SDCOM review, and to contact organizations or committees that may be interested in sponsoring this work in the future.	Open
4	Action item: Dale Svetanoff to follow up with Mark Bushnell regarding the implementation of revisions to the current P299 Standard and to coordinate with the IEEE Standards staff by 23 August on the formation of a balloting group.	Open
5	Action item: John Kraemer to investigate the voting/balloting procedure and schedule.	Open
6	Action item: John Kraemer to follow up on resolution of any negative ballots and make arrangements for re-ballot, as necessary.	Open
7	Action item: Don Heirman to assist in identifying a WG chair for the revision of the P139 Standard from within the CISPR Subcommittee B on ISM.	Open
8	Action item: Stephen Berger to ask the Secretary to contact the IEEE Standards Technical Editing staff to find out which formats are hospitable with <i>Frame Maker</i> .	Completed

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SDCom AGENDA (Revised)
Santa Clara, CA
Part I
August 9, 2004
8 – 10 AM

- | | | |
|----------------|--|-------------------|
| 1 | Call to Order | Berger |
| 2 | Introductions and Approval of Agenda | Berger |
| 3 | Review and Approval of Minutes of Previous Meeting | Secretary |
| 4 | New Initiatives | |
| 4.1 | GTEM Study Project & User Group | |
| 4.1.1 | Activities & Goals | |
| 4.2 | Appointment of Leadership | |
| 4.3 | Wireless Performance Prediction | |
| 4.3.1 | Status of Joint Effort with IEEE 802 | |
| 4.4 | Interference Temperature & Cognitive Radio | |
| 4.4.1 | Joint Sponsorship with Communications Society | |
| 4.4.2 | Structure & Organization | |
| 4.4.3 | IEEE 802 Efforts | |
| 5 | Status of Standards and PARs | Berger |
| Presentations: | | |
| | 8:50 Std 376 ¹ | Schaefer/Bronaugh |
| | 9:00 Std 473 ² | Joffe |
| | 9:20 P1560 ³ | Phipps |
| | 9:40 P1597 ⁴ | Drozd |
| 6 | 10:00 Recess until Wednesday Morning | |

¹ IEEE 376 - IEEE Standard for the Measurement of Impulse Bandwidth

² IEEE 473 - IEEE Practice for an Electromagnetic Site Survey (10kHz to 10 GHz)

³ IEEE P1560 - Methods of Measurement of Radio Frequency Interference Filter Suppression Capability in the Range of 100 Hz to 40 GHz

⁴ IEEE P1597.1 - IEEE Standard for Validation of Computational Electromagnetics (CEM) Computer Modeling and Simulation

IEEE P1597.2 - IEEE Recommended Practice for Computational Electromagnetics (CEM) Computer Modeling and Simulation Applications

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Part II
August 11, 2004
7 – 9 AM

- | | | |
|-----|---------------------------------|-----------------|
| 1 | Call to Order | Berger |
| 2 | Status of Standards and PARs | Berger |
| | 7:15 Std 187 ⁵ | Marks |
| | 7:35 Std 299 ⁶ | Svetanoff/Sarto |
| | 7:55 Std 1302 ⁷ | Catryssee |
| | 8:15 Std 1309 ⁸ | Kraemer |
| | 8:15 P1642 ⁹ | Radasky |
| 3 | Status of Other Stds | Secretary |
| 3.1 | Std 139 – Proposal for Revision | Hoolihan |
| 4 | Old Business | Berger |
| 5 | New Business | Berger |
| 6 | Open Action Items | Berger |
| 7 | Upcoming Meeting Schedule | |
| 8 | Adjournment | |

⁵ IEEE 187 - IEEE Standard on Radio Receivers: Open Field Method of Measurement of Spurious Radiation from FM and Television Broadcast Receivers

⁶ IEEE 299 - IEEE Standard Method of Measuring the Effectiveness of Electromagnetic Shielding Enclosures

⁷ IEEE 1302 - Guide for the Electromagnetic Characterization of Conductive Gaskets in the Frequency Range of DC to 18GHz

⁸ IEEE 1309 - IEEE Standard Method for the Calibration of Electromagnetic Field Sensors and Field Probes, Excluding Antennas, from 9 kHz to 40GHz

⁹ Recommended Practice for Protecting Public Accessible Computer Systems from Intentional EMI