

SDCom Meeting
Boston Sheraton Hotel
Boston, MA
May 30, 2002
12:45 p.m. – 5 p.m.

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| 1 | Call to Order | Berger |
| 2 | Recording of Attendance and Introductions | Denny |

Attendees: Heirman, Berger, Denny, Sweeney, Traver, Hoolihan, Drozd, Joffe
Visitors: Ron Brewer, Ghery Pettit, Kimball Williams, Warren Kesselman

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| 3 | Additions to and Approval of Agenda | Berger |
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Section 6.4 Planning for upcoming meetings

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| 4 | Review and Approval of Minutes of Previous Meeting | Denny |
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In the draft of the minutes of the February 14 meeting in Tempe, AZ, the affiliation of visitor Benigni was corrected to indicate that he is a Candidate for President Elect of the IEEE Standards Association. In Section 5, “Pilot” was corrected to read “Pilat.” Section 6, Item 11, “Deena” was corrected to be “Dheena.” With these corrections, Mr. Heirman moved approval of the February minutes, Mr. Drozd seconded the motion, and the corrected minutes were approved.

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| 5 | Status of Standards and PARs
(The current standards and approved PARs are listed in Attachment 1.) | Berger |
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5.1 Std 139-1988 (R1999), “*Recommended Practice for the Measurement of Radio Frequency Emissions from Industrial, Scientific, and Medical (ISM) Equipment Installed on User’s Premises.*” This standard is current through 2004. As initial steps in the evaluation of the usage and applicability of this standard, two members of the developing working group, Mr. Ed Bronaugh and Mr. Art Wall, were contacted by the Secretary via electronic mail. The chair of the 1988 working group, Mr. Dan Weinberg, and most of the other working group members seem to be no longer active in EMC work. According to Mr. Bronaugh, the current edition was a substantial rewrite of the 1952 original. Mr. Wall indicates that the Federal Communications Commission typically refers persons asking for guidance to FCC Publication MP-5, *FCC Methods of Measurements of Radio Noise Emissions from ISM Equipment* (February 1986). Std-139 is not currently called out in any FCC requirements. Per Mr. Wall’s suggestion, the Secretary contacted Mr. John Zimmerly of PSC, Inc, Cleveland OH. Mr. Zimmerly was not aware of Std-139 nor of the extent of its usage by RF heating manufacturers and installers. Based on this information, Mr. Bronaugh concludes that if the FCC does not reference Std-139, then perhaps it is no longer needed. However, Mr. Wall subsequently indicated that the FCC does have some continuing interest. In the ensuing

discussion, Mr. Heirman reminded the Committee that we are an international organization and are continually seeking to widen our influence in the international standards arena and that we should not solely assess our standards on US usage or lack thereof. He further noted that CISPR 11 spells out *in-situ* measurements but does contain limits. **A.I. Mr. Joffe as the Chair of the Standards Advisory and Coordinating Committee (SACCom) was asked to assess the international implications of revising or retiring Std-139.** It was further recommended that an article on Std-139 be published in the EMC Newsletter to solicit feedback as to its limitations and level of use. In addition, **(A.I.) Messrs Denny, Joffe, and Heirman were tasked to prepare an announcement on Std-139 for the Standards Association Newsletter.**

- 5.2 Std 187-1990 (R1955), “*IEEE Standard on Radio Receivers: Open Field Method of Measurement of Spurious Radiation from FM and Television Broadcast Receivers.*” Mr. Traver is leading the working group to update this standard. The text of the revised standard is complete, except for the drawings. The working group expects to have the entire draft completed by their final meeting on Thursday of the Minneapolis Symposium. Software copies of the draft were provided by Mr. Traver and have been distributed by the Secretary to the SDCCom members. Mr. Heirman requested that Mr. Traver verify that draft document (particularly the title and scope) conforms to the approved PAR. Mr. Hoolihan asked if the revised Std-187 would be a candidate for adoption by IEC or other international standards bodies. Specifically, does the emissions portion conflict with CISPR 13?
- 5.3 Std 213-1987 (R1988), “*IEEE Standard Procedure for Measuring Conducted Emissions in the Range of 300kHz to 25MHz from Television and FM Broadcast Receivers to Power Lines.*” Upon adoption of the revised Std-187, this standard will be retired.
- 5.4 Std 299-1997 “*IEEE Standard for Measuring the Effectiveness of Electromagnetic Shielding Enclosures.*” The report provided by the Working Group Chair, Mr. Dale Svetanoff, is Attachment 2.
- 5.5 Std 376-1975 (R1998) “*IEEE Standard for the Measurement of Impulse Strength and Impulse Bandwidth.*” This standard is due for revision/update/retirement on December 31, 2003. CISPR 16 is indicated as the IEC document most closely related to this standard, but it was not clear if CISPR 16 requires a measurement of impulse bandwidth. **A.I. Mr. Heirman will nominate a potential Working Group Chair to evaluate this standard and recommend revisions.**
- 5.6 Std 377-1980 (R1997), “*IEEE Recommended Practice for Measurement of Spurious Emissions from Land-Mobile Communications Transmitters.*” Considerable discussion arose as to who are the users of this standard? Does the FCC reference this standard in any of their practices? Is it harmonized with the IEC standards? Is it coordinated with the SAE? **A.I. Mr. Heirman will contact Mr. Poul Andersen to attempt to answer some of these issues.** If the Committee

subsequently determines that this standard is no longer used or needed, an announcement will be placed in the EMC Newsletter indicating that the standard is planned to be withdrawn and see what responses, if any, are received.

- 5.7 Std 473-1985 (R1997), “*IEEE Recommended Practice for an Site Survey (10 KHz to 10 GHz)*.” Mr. Joffe is chairing this working group. A copy of his report is Attachment 3. His working group is truly international in composition which makes the scheduling of face-to-face meetings very difficult. They are conducting their activities via electronic mail and with the aid of a dedicated web site. A day-long working group meeting is planned for Monday, August 19, at the Annual Symposium in Minneapolis. Mr. Pettit asked if there had been CENELEC coordination and, if not, was any anticipated? The subsequent discussion revealed that connections between IEEE standards work and other international bodies such as CENELEC, ETSI, IEC, etc were presently very weak. The Committee concluded that this was an area where we need to become proactive.
- 5.8 Std 475-2000, “*IEEE Standard Measurement Procedure for Field-Disturbance Sensors (rf Intrusion Alarms)*,” ANSI Recognized. This standard was revised in 2000 and is effective until December 31, 2005.
- 5.9 Std 1128-1998, “*IEEE Recommended Practice for Radio-Frequency (RF) Absorber Evaluation in the Range of 30 MHz to 5 GHz*.” Dr. Jose Perini indicates interest in chairing the working group to revise this standard as needed.
- 5.10 Std 1140-1994 (R1999), “*IEEE Standard Test Procedures for the Measurement of Electric and Magnetic Fields from Video Display Terminals (VDTs) from 5 Hz to 400 kHz*”. Mr. Dheena Mooniglan indicates interest in leading the working group to revise this standard as needed.
- 5.11 Std 1302-1998, “*IEEE Guide for the Electromagnetic Characterization of Conductive Gaskets in the Frequency Range CD to 18 GHz*.” Prof. Johan Catrysse is chairing the working group to revise this standard. His report is attachment 4.
- 5.12 Std 1309-1996, “*IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes Excluding Antennas from 9 kHz to 40 GHz*.” Mr. John Kraemer is leading the working group to revise this standard as needed.
- 5.13 P1530, “*Proposed Methods of Measurement of Radio Frequency Interference Filter Suppression Capability in the Range of 100 Hz to 40 GHz*.” Mr. Kermit Phipps is leading the working group to develop this standard. His report is attached.
- 5.14 P1597, “*Proposed Standard for Validation of Computational Electromagnetic Computer Modeling and Simulation*.” Mr. Andy Drozd is leading this developmental effort. His report is attachment 5.

6 Administration

Berger

6.1 Coordination

Sweeney

To continue to improve our responsiveness to requests for coordination on proposed standards, Mr. Sweeney plans to update the qualification and interest matrix of the SDCom members.

6.1.1 ANSI C63 Liaison

Mr. Bronaugh has resigned as Secretary of the ANSI C63 Committee. Mr. Sweeney volunteered to serve as the SDCom liaison to the ANSI C63 Committee. Mr. Heirman moved that Mr. Sweeney be selected as the SDCom liaison. Mr. Hoolihan seconded the motion. The motion passed unanimously. Mr. Berger and Mr. Heirman volunteered to serve as alternates.

6.2 Membership Requirements

At the previous meeting in Tempe AZ concern was expressed over the continued low attendance of several members at meetings other than the Annual Meeting held in conjunction with the Symposium. The February Meeting Minutes indicate that the motion to increase the minimum attendance to two meetings a year was effectively tabled because it was never voted on. The sense of those members present at the meeting in February was that all members of the Committee should have an opportunity to express their opinions and make recommendations before considering changes in the requirements for membership. Extensive dialog among the members was conducted via email subsequent to that meeting. To continue the discussion at this meeting, Mr. Hoolihan moved that the previous motion be taken off the table. The motion passed. During the discussion of the original motion to increase the minimum meeting attendance to two per year, Mr. Hoolihan moved that teleconferencing be accepted in lieu of a physical presence. Considerable discussion ensued in essence concluding that teleconferencing would enhance dialog and make the direct casting of votes possible, but that because of the length of the meetings, expecting a member to remain on the phone for up to 4 hours was unrealistic, not to mention the cost to the Committee if several individuals opted to participate. Mr. Hoolihan's motion failed with only one affirmative vote, with one abstention. Then the original motion to increase the minimum attendance to two meetings a year passed, with one negative vote being cast. The new attendance requirements will become effective January 1, 2003. **A.I. Mr. Berger and Mr. Traver will prepare and distribute a letter to the membership explaining the policy change and its rationale.**

6.3 Updates to P&P

Drozd

Mr. Drozd circulated a draft of proposed changes to the Practices & Procedures. Many of the proposed changes were administrative in nature and were principally to keep

our P&P in conformity with those of the IEEE. They also reflect the change in meeting requirements.

6.4 Future Meetings

Berger

Due to the success of the format in Montreal in 2001, the meetings in Minneapolis in August of this year will be the same: each working group chair will be asked to give a 15-minute report on the status of their respective development effort. **A.I. Secretary will notify each active working group chair of the format to be followed.**

The fall meeting of the SDCOM will be in Sao Paulo, Brazil on Saturday, November 16, in conjunction with a mini-symposium (one day conference) being sponsored by the local EMC chapter. The EMCS Board of Directors will be meeting the following day. Mr. Heirman expressed a desire for a substantial turnout for this meeting. Also, the BoD will holding its February meeting in Hawaii in February 2003 and the May 2003 meeting in Istanbul, Turkey in conjunction with the 2003 International Symposium. Members are encouraged to start making their travel plans as soon as possible.

6.5 IEEE P1583 – Standards for Voting Equipment – The EMC-related inputs provided by the SDCOM members were incorporated as recommended into the draft. The document now contains US limits only. During the discussion the question was raised to the effect do we want to broaden the limits to be compatible with international standards? As presently written, the draft does not reflect that deliberate efforts might be undertaken to intentionally jam voting machines to make the inoperable or to change their results. What immunity levels would be necessary and appropriate to prevent such an occurrence? Considering the impact on final costs of the machines, what immunity levels are realistic? Mr. Berger requested written inputs from the members as soon as possible.

6.6 Committee Recruitment --

Discussion

It is expected that the previously adoption of increased attendance at meetings will further deplete the member rolls of the committee. There is also a need to increase the number of members even beyond the current number. Mr. Berger asked for suggested criteria for new members for compilation. With this information, a notice in the EMC Newsletter and the Standards Association Newsletter may be prepared. In addition, Mr. Joffe as the SACCOM chair can advertise the opportunity to the various committees represented on the SACCOM.

7 Action Items from this meeting

Denny

1. Mr. Joffe as the Chair of the Standards Advisory and Coordinating Committee (SACCOM) was asked to assess the international implications of revising or retiring Std-139.

2. Messrs Denny, Joffe, and Heirman were tasked to prepare an announcement on Std-139 for the Standards Association Newsletter.
3. Mr. Berger and Mr. Traver will craft a letter to the membership explaining the change in membership requirements and its rationale.
4. Mr. Heirman will nominate a potential Working Group Chair to evaluate Standard 376 and recommend revisions.
5. Secretary will notify each active working group chair of the format to be followed for the active working groups at the Annual Meeting in Minneapolis.

8 Next Meeting

The next meeting will be at the EMC Symposium in Minneapolis, Minnesota on Aug. 19, 2002, from 8 – 10 am and on Aug. 21, 2002, from 7 – 9 am.

- 9 Adjournment: The meeting adjourned at 5:00 pm.

ATTACHMENT 1
SDCOM IEEE STANDARDS
Current Status – 8/1/02

IEEE-STD-	TITLE	Current Exp. Date	Chair or Point of Contact and Status
139-1988	(RP) Measurement of RF Emission from ISM Equipment on User's Premises	Dec 31, 2004	Under review with FCC and for potential international usage.
187-1990	Open Field Method of Measurement of Spurious Radiation from FM and TV Receivers	Nov 8, 2004	Under revision. Dave Traver, chair of WG.
213-1987	Measuring Conducted Emissions from TV and FM Receivers (ANSI Recognized)	Dec 31, 2003	Requirements being incorporated into Revised 187
299-1991	Measuring the Effectiveness of Shielding Enclosures (ANSI Recognized)	Dec 7, 2004	Under revision. Dale Svetanoff , Chair of WG.
376-1975	Measurement of Impulse Strength and Impulse Bandwidth (ANSI Recognized)	Dec 31, 2003	Will need WG to review for amending or reaffirming in 2002.
377-1980	(RP) Measurement of Spurious Emissions from Land-Mobile Comm. Transmitters (ANSI Recognized)	Dec 31, 2002	Reaffirmation in process.
473-1985	(RP) EM Site Survey (10 KHz – 10 GHz) (ANSI Recognized)	May 30, 2005	Under revision. Elya Joffe, chair of WG.
475-2000	Measurement of Field Disturbance Sensors (rf Intrusion Alarms) (ANSI Recognized)	Dec 31, 2005	ANSI Recognized.
1128-1998	Measurement of RF Absorbing Materials	Dec 31, 2003	Dr. Jose Perini to chair revision/update effort.
1140-1994	Measurement of E&H Fields from VDTs	Dec 31, 2004	Dheena Moongilan agrees to lead review effort for potential revision/update.
1302-1998	Guide for the Characterization of EMI Gaskets	Dec 31, 2005	Prof. Johan Catrysse leading WG to revise and update.
1309-1996	Calibration of Electromagnetic Field Sensors and Field Probes, exc. Antennas, 9 kHz – 40 GHz	Dec 31, 2005	John Kraemer, WG Chair to revise and update.
P1560	Methods of Measurement of Radio Frequency Interference Filter Suppression Capability in the Range of 100 Hz to 40 GHz.	Dec 31, 2003	WG active. K. Phipps, Chair
P1597	Standard for validation of CEM Computer Modeling and Simulation	2005	Andy Drozd, WG chair.

ATTACHMENT 2

DALE G. SVETANOFF
CHAIR, IEEE P299 WORKING GROUP
14356 170TH AVE.
MONTICELLO, IA 52310
August 28, 2002

Report of the P299 Working Group

The Chair regrets to report that no progress has been made on this important document since the Montreal EMC Symposium meetings in August, 2001. (The Chair sincerely appreciated the work of Vice-Chair Dr. William Croisant in conducting the two sessions of the Working Group, as well as representing the WG at the Symposium SDCOM meeting.) The Chair is aware that a revision to the existing PAR is needed, as well as issuance of a new PAR to address the very small physical size enclosure testing.

The Chair has not been available as expected. He has discussed the issue with both the SDCOM Chair and Mr. Donald Heirman.

Arrangements have been made for two (2) Working Group meeting sessions at the August, 2002, Symposium. These have been published in the Advance Program. The first session is scheduled for Sunday, 18 August, and the second for Friday, 23 August. It is also expected that one, possibly two, teleconferences will be held between June, 2002, and the time of the Symposium meetings to resume normal WG activity and prepare for the Symposium sessions. The Chair expects to attend and lead all of the planned meeting sessions.

Fortunately, changes to the existing 299 document are not extensive and can be expected to be made expeditiously, time and availability of Working Group personnel permitting.

Respectfully submitted,

Dale G. Svetanoff
Dale G. Svetanoff, Chair



IEEE WG 473
*IEEE Recommended Practice for an
Electromagnetic Site Survey (10 kHz to 40 GHz)*



May 25, 2002

Stephen Berger
EMC-S Standards Development Committee (SDCom)

Dear Stephen,

Subject: Report #4 of WG 473 Chair: 5/2002

It affords me great pleasure to submit to you my fourth Report as Chairman of the IEEE WG 473 "*IEEE Recommended Practice for an Electromagnetic Site Survey (10kHz to 40GHz)*".

GENERAL

The WG held no additional meetings since its first meeting held on August 15, 2001, in conjunction with the 2001 IEEE International Symposium on EMC. However, the WG intends to hold a meeting on June 1, 2002, in Boston, following the BoD meeting and the Standards Committees meetings.

Work mostly continued in the WG using e-mail.

The work, in this period, focused, primarily, on the finalization of a revised outline for the new Standard, considering all the additional topics and revisions proposed for the Standard.

On April 18, 2002, the last outline was prepared, which was approved by e-mail, by the WG members. This outline, therefore, shall form the basis for discussions and the WG work.

ORGANIZATIONAL ISSUES

No change from last report.

However, I initiated several activities for increasing membership and support to the work of the WG:

- a) I placed a short notice in the EMC-S Newsletter to invite increased membership
- b) I placed a "Call for Volunteers" in the "IEEE-SA News Just Posted, 6 May 2002"

** CALL FOR VOLUNTEERS - IEEE P473 WORKING GROUP*

Revision of IEEE Recommended Practice for an Electromagnetic Site Survey (10 kHz to 10 GHz) IEEE STD 473 describes a systematic approach for performing an Electromagnetic (EM) site survey, commencing from the preparation of the planning of the test until completion, data analysis, and documentation of the measurement results. The Standard outlines procedures and information regarding

the methods for conducting EM site surveys particularly for EMR Bio-effects and equipment effects applications.

For more on this story, go to:

<http://memcentral.standards.ieee.org/sa/member/sanews/archives/news6-May-02.html#473>

That "call for volunteers" has already yielded 3 replies, from the UK, India and South Africa. It seems like this WG is going to be truly international.

- c) I published the "Call for Volunteers" on the IEEE Standards home page, <http://standards.ieee.org/>

See also "News Byte", at <http://standards.ieee.org/announcements/p473call.html>

PROGRESS STATUS

The working group was formed to review and revise the IEEE Std 473-1985, "IEEE Recommended Practice for an Electromagnetic Site Survey (10 kHz to 10 GHz)". The main objectives of this effort are to expand the coverage of the standard from 10 GHz to 40 GHz and update measurement techniques to reflect current state of the arts and technologies.

Open action items that were adopted during the Montreal meeting includes the following:

- a. Action to check requirements for measurement uncertainty (**in progress**)
- b. Review PAR and suggest guidelines for Test Plans (**Open**)

A final outline of the Standard has been adopted by the WG in April. That outline will form the basis for detailed discussions and work on the revision of the Standard.

In the meeting to be held on June 1 in Boston, I intend to start detailed discussions on the sections of the Standard, following the revised outline, and especially assigning members sections for working on, until the next meeting, scheduled for August, 2002 (in Minneapolis).

WEB SITE

Due to the large distribution of members, maximum use will be made of cyberspace communications for exchange of information. That should require setting up the following:

- a. A "Standard" web site of the Committee has been set-up with the help of Stephen Berger. I have not been able to attempt to upload information on the site, due to a heavy workload. I hope I can do that soon.

Help is required for setting this up.

- a. A password protected "distribution list" with likewise a secure archive, has been set up, and can be accessed (by members only) by sending e-mail to: stds-473@ieee.org
- b. Regretfully, though, this list is limited in size of messages delivered, which limits its usage to short comments and messages. No attachments can be sent in messages using the distribution list.

SCHEDULE

The next meeting, planned as a full-day meeting, will be during IEEE EMC'2002 in Minneapolis.

POINTS OF DIFFICULTIES

The primary difficulty is that of increasing the size of the WG. I believe that it will be difficult for a team of 12 people to do all the work.

To overcome this issue, see the actions I have taken in the section "**ORGANIZATIONAL ISSUES**" above.

SUMMARY

In summary, we are just at the beginning of the way. However, it seems like we are making progress in a structured manner.

I appreciate the wonderful team of experts I have in the WG, and will do my best to lead the WG to a successful accomplishment of its goals on a timely and proper manner.

Respectfully submitted,

A

Elya B. Joffe
WG 473 Chair

ATTACHMENT 4

From: "Johan Catrysse" <johan.catrysse@kh.khbo.be>
To: "Hugh W. Denny" <hugh.denny@gtri.gatech.edu>
Subject: Re: Status Reports
Date: Wed, 29 May 2002 13:25:23 +0200
X-Mailer: Microsoft Outlook Express 5.00.2615.200

dear mr. denny,

1. a call for participation in PAR 1302 will be published in the next EMC newsletter
2. a committee list will be made upon the reactions on this call, and also trying to find the members of the old committee
3. the first meeting is planned during the next IEEE EMC conference in August 2002

sincerely

ATTACHMENT 5

From: Andro1@aol.com
Date: Sun, 26 May 2002 18:30:57 EDT
Subject: Re: Status Reports
To: hugh.denny@gtri.gatech.edu
CC: Andro1@aol.com
X-Mailer: AOL 5.0 for Windows sub 108

P1597.1 and P1597.2:

Held abbreviated W/G meetings with partial committee participation attendance at ACES Conference, Monterey on 19 March. Discussed the role of commercial modeling standards and issues (Nokia).

Gave an invited presentation at the 2002 Electromagnetic Code Consortium (EMCC) Annual Review Meeting on our CEM standards development work and held informal W/G discussions on 7 and 8 May in Albuquerque, NM. I enlisted the support of the EMCC Technical Working Group on Benchmarks. EMCC POC is Kam Hom of NASA. EMCC is hoping to embark further into EMI/C territory, hence, their expressed interest in these projects.

Am working on a progress report and minutes of recent meetings/discussions to send electronically to the international committee at large. Major progress to report: an outline of the draft has been developed and writing assignments are in progress. Research has concentrated on adapting the CGNS, The CFD General Notation System Overview and Entry-Level Document, CGNS Project Group.

Prepared and submitted a detailed summary description of the CEM Standards and Recommended Practices Project for the 2002 Minneapolis EMC Symposium Standards Workshop.

Andy Drozd