

SDCom MINUTES
Marriott Resort
Hilton Head, SC
March 14, 2001

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| 1 | Call to Order | Berger |
| 2 | Introductions and Approval of Agenda | Berger |

Members present: Berger, Denny, Heirman, Hoolihan, Sweeney, Drozd, and Traver,.

Members absent: Butler, Kraemer, Sato, Ritenour, Showers, Bronaugh, and Joffe

Visitor: Gary Fenical, Laird Technologies

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| 3 | Review and Approval of Minutes of Previous Meeting | Denny |
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The minutes of the November 15, 2000 meeting in Tampa, FL were approved as distributed.

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| 4 | Review of E-MAIL Ballots & Agenda Adoption | Denny |
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4.1 PAR 1302

The draft PAR to revise/update Std-1302 was previously circulated electronically to the SDCom membership. Six of the SDCom members indicated their approval; there were no other ballots returned. However, PAR 1302 was approved at the November 15, 2000 meeting in Tampa, FL by SDCom and was submitted to NesCom. The ensuing discussion at this meeting indicated that it was not made clear at the time of the circulation of the draft PAR that a response by the members was necessary. Particular note will be made during the future circulation of PAR's if a response by SDCom members is expected.

4.2 Implementation of Ballot Pool

Numerous comments have been received in response to the query circulated by the IEEE Standards Office as to whether the EMCS Standards Development Committee would be in favor of participating in a Ballot Pool for our standards. In favor of such a pool is that balloting groups would not have to be established for each standard undergoing voting. A reservation expressed by several members is that many of the potential voters in the pool might not be sufficiently familiar with the background and objective of the standard to vote affirmatively without major comments. Addressing such comments from a large number of respondents could prove to be a significant burden on Working Groups.

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| 5 | Emerging Technologies & Study Topics | Berger |
| 5.1 | Technology Tracking Sub-Committee | Hoolihan |

Dan distributed copies of the report made to the BoD on his attendance at the IEEE Workshop on new and Emerging Technologies at Rutgers University on January 18-19, 2001. The five key topics covered at the Workshop were Photonics,

Wireless Technologies, New Materials, Systems-on-Chip, and Nanotechnologies. According to Dan, EMI and EMC were mentioned specifically only four times during two days. The Proceedings of the Workshop were expected to be published around March 1 and thus should now be available for those interested. (If you would like to receive a copy of Dan's report, contact him directly.)

5.2 ITU-T SG5 "EMC related to broadband access systems" Berger

Following adjournment of the SDCom meeting, committee members joined the 802.11 + 802.15 meeting. A general overview was given by each group on their thrusts and general activities. Potential opportunities for cooperation between the groups were briefly discussed.

6 Composition of Balloting Groups Denny

The efforts to compile the matrix of EMC Standards Balloting Categories are lagging as indicated Attachment A. Note that as of the date of this meeting, four members of the committee have not provided their prioritized list of categories for each of our standards. Those SDCom members who have already done so are asked to complete their column of the matrix and forward it to the Secretary.

7 Reaffirmation of Std-140 Denny

Of the 14 SDCom members on the Balloting Group for the Reaffirmation of Std-140, two did not respond. Out of the 12 votes received, there were 2 negative votes. These negative votes were primarily based on the fact that some of the cited references were not the current versions. Other editorial revisions were also noted.

8 Status of Standards and PARs Denny

Attachment B summarizes the current status of the standards and approved PARs. Of these, the Reaffirmation of Std-140 has gone through the balloting process. As soon as the suggested/required changes are implemented, Std-140 should be effective for another 5 years. A PAR to update 473 was approved earlier. (A summary of the activities planned by Elya Joffe appears in the Winter 2001 issue of the EMC Society Newsletter.) The revised Std-475 was formally adopted by SDCom last year. However, the balloting group did not include any manufacturers and thus the new standard cannot be recognized by ANSI. It will be necessary to form a new balloting group including a representative number of manufacturers and reballot Std-475. Std-1309 is due for revision or reaffirmation in 2001. The committee voted to conduct a reaffirmation ballot on 1309 and to recommend that a PAR be established to revise the standard as appropriate. It was emphasized that although up to 4 years is permitted by the IEEE Standards Office to complete a PAR, it is not required that the effort take this long. Hoolihan made the following motion: "The SDCom conduct a reaffirmation ballot on Std-1309 immediately to be followed by the formation of a working group to revise Std-1309 within a time period of 3 years." The motion was seconded and approved.

Heirman suggested that the standards matrix be circulated to the SACCom membership list. **A.I. Secretary to forward the Standards Matrix to the SACCom membership list along with a request for the members to identify any related activities that they are involved in or know about and to see if any of their members are interested in supporting the EMCS standards development activities.**

REPORTS OF WORKING GROUPS:

Std-187: David Traver, Chair

PAR 187 is on-schedule. The goal is to have first draft out by March end. We will distribute electronically. We hope to have a sufficiently complete revision of the first draft to discuss with FCC in May of 2001. After the FCC input and further discussions, we will try for more final draft. Next, we intend to have a W/G meeting at the August Canada Symposia to work out the final details. I am hoping that SDCOM and others from EMC Society that are interested will also come to the meeting and we can truly coordinate other inputs.

Std-299: Dale Svetanoff, Chair

The P299 WG met in Chicago on November 30 and December 1. Here is a summary:

The KEY CONCEPT that evolved from this session: create a separate part of 299 for EACH size of enclosure.

Briefly, the group felt that user efficiency and document arrangement would work best in this manner: (New parts listed are for discussion only; actual part numbers and implementation of the following plan is subject to future approval of both the EMC Society SDCOM and IEEE-SA NesCom.)

- 1. The present 299, with some corrections and additions for measurement uncertainty, becomes THE part for "classical" shielded enclosures, those with no linear dimension less than 2 meters. (These are rooms and chambers, ranging in size from barely larger than a "telephone booth" to aircraft hangers.)*
- 2. A NEW 299.1 becomes the part for enclosures having a smallest dimension of 1.0 m. (Transportable shelters, shielded vestibules and walk-ways, and special small rooms/chambers would be likely in this size category.)*
- 3. A NEW 299.2 becomes the part for enclosures having a smallest dimension of 0.5 m. (Many table top enclosures, rack cabinets, telecom system cabinets, and some avionics bays would fall into this category.)*
- 4. A NEW 299.3 becomes the part for enclosures having a smallest dimension of 0.075 m (7.5 cm). (Avionics enclosures, PC and related IT enclosures, automotive and industrial control system enclosures and cabinets are candidates for this category.)*

5. A NEW 299.4 becomes the part for enclosures having a smallest dimension of 1 cm. (This size, of course, includes on-board shielding for printed circuit assemblies, plus small module enclosures used in automotive, avionics, military, and IT applications.)

In general, it was felt that the term "standard" could still be applied to parts 299.1 and 299.2; it is possible that parts 299.3 and 299.4 could become "guides" (due to multiple test techniques being applicable), and it is also foreseen that the small enclosure test procedures and techniques might actually result in just one new part, with proposed 299.3 being a guide that is applicable for all small enclosure testing. Future deliberations (and possible testing) are needed in order to make that decision.

I believe that implementing this new approach will cause two changes in the current program:

- 1. The present PAR will have to be modified.*
- 2. New PARs would be required for EACH of the new parts.*

P1530, Lothar Hoeft, Chair:

Some progress has been made since the WG Meeting in August 2000. Significant decisions were made at the Washington Meeting. The working group felt that "With a minimum of effort the document could be finished. Therefore, the working group decided that we should proceed and finish the recommended practice." In addition, the working group decided to delete clause 4.1.3 (Using Shielding Artifact in GTEM Cell) since no one was available to write it. Essentially, we adopted a policy of cutting out those sections that we did not have resources for and focusing on finishing the recommended practice as soon as possible (i.e., cut and prod). In line with this philosophy, John Ladbury quickly wrote rough drafts of clauses 4.1.2 and clause 7. Thus, at least something is written for the complete body of the document. What remains to be written is Appendix B, Procedures for calculating the stirred mode chamber shielding effectiveness of a shielding artifact from physical dimensions and material properties. John Ladbury offered to look at writing this appendix. This action item is still in limbo. Present status is we almost have a document written. It needs some filling in and quite a bit of polishing. The schedule calls for it to be delivered to IEEE for balloting in August 2001. This will probably not be met. Six months to a year delay seems probable. If the working group jumps in and finishes the document over a weekend and then spends another weekend polishing it, we might make the schedule. As far as I am concerned, waiting for experimental results would cause too much of a delay. I think we should publish the recommended practice and see if it gets used and if there are any glitches in it.

P1560, Kermit Phipps, Chair:

The LISN issue has been reviewed, but there has been no direct forthcoming resolution yet. It appears that the LISN may be acceptable for frequencies above 1 MHz and a

compromise may be determined. The basic (50uH) LISN (good for conducted emissions testing) does not offer realistic enough impedance variation at low frequency range of 1kHz to 100kHz where most PLFs do not operate when designed in a 50/50 ohm system. Additional tests may be added to settle this issue, while maintaining the LISN approach for frequencies above 150kHz.

Richard Lee Ozenbaugh is the newest member to the group and is author of the book "EMI Filter Design" He will be able to add insight and value to the group.

The six-month review of applicable documents is done.

The Draft Strawman is being revised and updated before distribution to the group.

We are currently behind by 4 months, it is expected though once the strawman is released and work sections assigned we will be still on target.

Future plans:

*Review of strawman and receive comments.
Vote on strawman sections and final outline.
Assign works sections to members.*

9 SDCOM Administration

9.1 Additions to the P&P Drozd

Suggested changes to the P&P were electronically distributed to the SDCOM members prior to the meeting. The recommended changes were adopted.

9.2 Web Site Berger

Denny noted that the SDCOM web page had not been updated since 1999. Clearly the earlier plan of sending update information to Luigi is not working as expected.

A.I Drozd and Berger determine what steps are necessary to get information posted on the web site in a timely manner.

9.3 Meeting Quorums, etc ALL

It was pointed out by Don Sweeney that the number of members present for this meeting was almost insufficient for a quorum to transact business. The secretary admitted to failure to request proxies from those not planning to attend. This will be rectified for future meetings. However, a larger issue exists in that all members are not promptly responding to ballots, nor to requests for information considered essential to the efficient accomplishment of the SDCOM goals and objectives. It was reiterated that at the time of adoption of the Policies and Procedures for SDCOM, that with the lessening of the requirement for personal

presence at the meetings to only one per year that all ballots would be returned promptly and that maximum use of electronic communication would be employed. All members are admonished to be more responsive to ballots and other voting issues (such as PARs) and to respond to requests for information in a timely fashion.

10 Old Action Items

Denny

1. Elya Joffe: Prepare PAR to update and revise Std-473. (Completed.)
2. John Kraemer: Recommend course of action for reaffirming or revising 1309. (Completed. Conduct ballot for reaffirmation. Prepare PAR to revise/update as appropriate.)
3. Ed Bronaugh: Evaluate status of Std-140 and make recommendations to SDCCom on updates/revisions. (Open)
4. Bud Hoeft: Assess status of P1530 and determine if time extension is required. (Completed)
5. Dale Svetanoff: Coordinate with McFadden extension of Std-299 to cover small (< 30 cm) shields. (Completed)
6. ALL: Review suggested modifications to the P&P and forward corrections and additions to Andy Drozd. (Completed.)

11 New Action Items Resulting from This Meeting

1. Secretary contact the IEEE Standards Office to request reaffirmation ballot on Std-1309.
2. Secretary to distribute the Standards Matrix to the SACCom representatives.
3. Based on the findings of Drozd and Berger, the Chair and Secretary work out a methodology for timely posting of information on the SDCCom web page.
4. Berger: Update the Organization Chart to reflect the Operations Manual
5. ALL: Emphasize timely responses to information requests and ballots

12 Next Meeting

The next meeting will in be in Minneapolis on June 15 in connection with the next EMCS Board of Directors meeting.

13 Adjournment: