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January 28, 1992

MINUTES OF THE IEEE EMCS STANDARDS COMMITTEE

NOVEMBER 15, 1991
8:00 to 10:00 A.M.
Anaheim Marriott Hotel
Anaheim, Ca.

MEMBERS PRESENT

Don Heirman, Chairman
Stephen Berger
Dan Hoolihan
Dave Staggs
Gene Cory

Ed Bronaugh
Dave Traver
Hugh Denny
Joe Butler

MEMBERS ABSENT

Leonard Thomas, Sr.
Jim Parker
Risaburo Sato

Gene Knowles
Ralph Showers

OTHERS PRESENT

Dheena Moongilan (P1140)
Don Clark (GA Tech)

Ralph Justus (EIA)
John Adams (NIST)

ADDITIONAL MINUTES DISTRIBUTION

Dheena Moongilan (P1140)
Bob Egan (P1190)
(P1128)
Janet O'Neill (EMCS BoD)
Sue Vogel (IEEE)

Don Kerns (P475)
Anatoly Tsaliovich
Poul Anderson (VT liaison)
Terry deCourcelle (IEEE)

MINUTES

- 1.0 Call to Order - The chairman opened the meeting at 8:00 A.M. and welcomed the attenders to the meeting. (See attachment A - Agenda, attachment B - Board Report)
- 1.1 Agenda review & additions to Agenda - The Chair added the following items to the agenda:
- 1.2 Withdrawal of Fabina nomination.
 - 4.1 New Standards ideas.
 - 5.3 Calibration of Isotropic Probes
 - 5.4 PWB Layout
 - 5.5 Policy for W/G chairmen - 1 W/G at a time
 - 5.6 PAR Review
 - 5.7 Criterion for EMCS Std Com Membership
 - 5.8 Candidates for Standards Medallion in 1992
 - 5.9 Compendium of EMC Standards
 - 5.10 Premature publication of drafts
 - 5.11 Copyright language
 - 6.1 Letter of thanks from Dr. Showers
 - 6.2 New PAR form
 - 6.3 Update on recent standards actions
 - 6.4 W/G member lists w/ MUG factors
- 1.2 Withdrawal of Fabina Nomination - The Chair reported that Mr. Fabina had withdrawn his name from nomination (See attachment C).
- 2.0 Review of Minutes of the Last Meeting - The minutes of the August 17, 1991 meeting were reviewed.

The following errors were noted:

- 3.0.1 (Pg. 2) - "MIL STD 485" should be "MIL STD 285".
- 3.0.1 (Pg. 3) - "MIL STD 485" should be "MIL STD 285".
- 3.1 (Pg. 3) - "security devices society" should be "security devices trade organization".
- 3.3 (Pg. 5) - "a.k.a." should be "vis-a-vie".
- 3.3 (Pg. 5) - The A.I. for H. Denny is to provide a "letter for withdrawal, with reasons" not a "PAR for withdrawal".
- 3.4 (Pg. 5) - The first A.I. the word "PAR" should be "PAR"

with the new scope".

- 3.5 (Pg. 5) - "tend to freeze project before" should be "tends to provide misleading information before"
- 3.5 (Pg. 5) - The A.I. "Standards Office" should be "Sue Vogel of the Standards Office".
- 3.5 (Pg. 5) - Add the following sentence at the end of the first paragraph of 3.5, "Miss. Vogel has several examples of requests for drafts which the Standards Office has received."
- 5.4 (Pg. 7) - The A.I. should be assigned to G. Cory.
- 6.2 (Pg. 7) - This section should read, "It was agreed that C63 should be advised of the intended completion date of P1140 and P1190. Upon completion these documents should be forwarded to ANSI C63 S/C 1 as a proposal for incorporation into the appropriate C63 standards."
- 6.4 (Pg. 8) - Attachment N should be attached to paragraph 6.5.
- 6.7 (Pg. 8) - Add an A.I. for Sue Vogel to send a letter to the Sec. with the new copyright language.

With these changes the minutes of the August 17, 1991 meeting were approved.

3.0 Review of Standards Activities

3.0.1 STD 299 - The Chair reported that a new PAR had not been A.I. received. The A.I. remains open. The chairman requested that all members mark up the PAR when received with special attention to the purpose and submit their comments to the chair. Items which must be resolved for the PAR are:

- 1. Frequency range of interest in the EMC community. The W/G should check pertinent interest groups to determine this. Specifically the working range of other standards such as MIL STD 285, 461 & 462 should be checked. It was noted that SCC 28 is extending its range of interest to 5 Hz.
- 2. The W/G should also assure that instrumentation is

available which will make the required measurements at the frequency extremes.

[Sec note: The original W/G chair - Dick Schulz - contacted the Chair and requested continuation of his role in the revision and mention of the original W/G members for the last
A.I. revision. The sec. was asked to facilitate this request by sending such notification to Schulz, Knowles, and Bronaugh and ask that they prepare the new PAR which includes the standards committee recommendations.]

3.1 Standard 475 - No report was available from the W/G. The
A.I. remains open. The W/G chair was asked to respond by year's end.

[NOTE: On January 13, 1992 the Standards Office send a letter to the sec. that if a submittal was not received by February 7 this standard would be withdrawn. (See attachment D)]

3.2 Standard P482 - J. Adams gave the report for the W/G. There was a meeting of the W/G at NIST in Boulder, Co. on Oct. 30, 1991. The group looked at the mode stirred chamber at NIST and discussed this technology. Several common areas of concern were discussed with the NVLAP program.

A PAR was passed out and reviewed (See attachment E). H. Denny questioned DC as the beginning point of the frequency range. The chair asked J. Adams whether DC had been discussed
discussed as a low frequency requirement? J. Adams responded that this specific point had not been discussed. Some discussion followed. The chair suggested that "at least 40 Ghz" was too vague. The conclusion was that a more specific frequency
A.I. range was needed and an AC lower limit. The W/G chair is to review and correct the PAR as recommended.

D. Moongilan questioned the title. A discussion followed as to what properties should be measured. It was offered that transfer impedance and shielding effectiveness were the key parameters. E. Bronaugh suggested that the title might be "Recommended Practice for Testing of Shielded Cables and Connectors for Shielding Effectiveness and Transfer Impedance".

The committee then discussed the purpose section of the PAR. It was commented that the purpose and scope seem to be at conflict.

It was also commented that the military groups were not
A.I. represented on the coordination list. It was suggested that

MIL STD 1377 be contacted and added for coordination.

- 3.3 Standard P509 - The chair asked if a letter had been sent to NESCOM withdrawing P509? H. Denny said "no" and requested a phone call after he returned to his office to remind him of this A.I. The sec. was asked to send H. Denny a new PAR form so that the altered project could be submitted.
- 3.4 Standard P1128 - The chair requested a revised PAR reflecting the new scope from the W/G chair, A. Tsaliovich. This A.I. from last meeting remains open. The W/G chair is asked to respond by year's end.
- 3.5 Standard P1140 - The chair commented on the number of public quotes in the press on the preliminary drafts. He again underscored the importance of not releasing draft material. (NOTE: See resolution approved under section 5.10.)

D. Moongilan reported on the meeting which had taken place the day before, November 14, 1991. The meeting was held to review and resolve open comments and negative votes. Besides those attending a conference call was arranged to three locations. This allowed six additional participants in the discussion. The central items which were discussed were:

1. Frequency domain measurements in place of time domain measurements.
2. Use of single axis loops as opposed to three axis loops.
3. Whether to keep or delete Appendix D, which reports on reasonably achievable levels.

A question was raised as to whether ECMA was sufficiently consulted. It was reported that B. Hanrahan was on the balloting list and was representing ECMA.

A.I. The chair asked that the members of the Standards Committee return the next ballot within two weeks after they receive it.

A.I. The sec. was asked to send a letter to probe manufacturers requesting their involvement. Among the companies named were: Holaday, NARDA, EMCO, Walker Scientific and General Instruments.

R. Justus asked about the balloting process. The chair reviewed the procedure which would be followed.

3.6 Standard P1190 - No report for this meeting. This is overdue.

- A.I. The W/G chair is requested to respond by year's end.
- 4.0 New Business
- 4.1 New Standards - The chair asked about new ideas for standards. E. Bronaugh suggested a standard was needed allowing Helmholtz Coils to be used alternatively with Van Veen Loops for magnetic measurements. H. Denny asked if the MFIM (Magnetic Field Intensity Meter) was usable in this regard. Discussion followed. Any proposal should be formalized with a PAR draft by the next meeting.
- 5.0 Old Business
- 5.1 Review of MUG, mailing addresses, ballot/attendance participation - The MUG Factor list and Address list was reviewed. Various changes were made and these are reflected in the updated documents (See attachments F - MUG Factors, G -Address list, H - Ballot/Attendance Participation).
- 5.2 Action Items from Previous meetings - A review of the open action items followed and is reflected in the action item list attached to these minutes.
- 5.3 Calibration of Isotropic Probes - E. Bronaugh presented a PAR for this project. John Kraemer of Rockwell International has volunteered to be the W/G chair. The chair requested that the PAR be entered into the minutes for the committee to review (See attachment I). E. Bronaugh asked for comments before the next meeting.
- 5.4 PWB Layout - S. Berger reported that time had not allowed further work on this topic. After discussion it was agreed that this topic would be more appropriate for a book than a standard. The subject was left for interested parties to discuss with IEEE press.
- 5.5 Policy for W/G chairmen -1 W/G at a time - The chair reviewed the issues involved and asked J. Butler to work with G. Knowles in developing a policy in this area to restrict W/G chairs to heading only one W/G at a time.
- 5.6 PAR Review - The sec. was asked to mail a packet containing all PAR's with the new guidelines to the committee for review. Comments should be returned to the sec. before the next meeting.
- 5.7 Criterion for EMCS Std Com Membership - The chair reviewed

the issues involved and the draft proposal from Knowles and
A.I. asked J. Butler to work with G. Knowles in developing a
policy
in this area.

5.8 Candidates for Standards Medallion in 1992 - After a report
on
the standards medallions awards made at the 1991 Symposium
the
chair asked G. Cory to continue his efforts regarding
nominees

A.I. for standards medallions. G. Cory requested that all members
submit names to him for this award.

Feedback was then requested on the names which had been
submitted at the end of the last meeting. The people who had
been nominated, in alphabetical order, were:

Stephen Berger
Ed Bronaugh
Gene Cory
Don Heirman
Gene Knowles
Prof. Sato

A ballot was handed out in order to rank these nominees. The
committee was also invited to add names into nomination.
Four new nominees were mentioned, these were:

Wolf Lauber
John O'Neil
Jim Parker
Dave Staggs

5.9 Compendium of EMC Standards - The chair noted that E.
Bronaugh

was working with S. Vogel on a compendium of EMC standards.

A.I. Because the last list of EMC standards copied very lightly,
E.

Bronaugh offered to have the list attached to the last
minutes

retyped and submitted with the next minutes. (See attachment
J).

5.10 Premature publication of drafts - After discussion of the
problem of premature publication of drafts a motion was made,
seconded and passed which states: "No draft shall be sold or
distributed in any way beyond the working group until the
draft has been approved for release by a vote of the EMC

A.I. Society Standards Committee." The sec. was asked to inform

all W/G chairmen and Sue Vogel/Terry deCourcelle of this policy. (See attachment K)

5.11 Copyright language - The sec. was asked to call S. Vogel for
A.I. a copy of the currently recommended copyright language. This
language should be distributed to all W/G chairmen and used
on
all IEEE drafts. (See attachments K)

6.0 New Business

6.1 Letter of thanks from Dr. Showers - The chair read and entered into the minutes a letter from Dr. Showers to the committee thanking them for having awarded him the Standards Medallion (See attachment L).

6.2 New PAR form - The chair reported that a draft of a new PAR form was being reviewed and was expected to be released in late January.

6.3 Update on recent standards actions - The chair reviewed the latest edition of the "Standard's Bearer" regarding EMC Society Standards. This issue reports the reaffirmation of two standards and the publication of STD 299.

6.4 W/G member lists w/ MUG factors - The W/G chairmen were asked
A.I. to send the sec. the current membership of their W/G with
each
members MUG factor.

[NOTE: At the end of the meeting a discussion was held of the increasing clerical load of the committee. The sec. was authorized to secure 2-3 days of paid clerical assistance per quarter to help in carrying out the work of the committee. This cost should be estimated for the 1993 EMCS budget due March 1992.]

7.0 Next Meeting - The next meeting of this committee is Friday, February 11, 1992 from 8:00 AM to 10:00 AM at the Grand Kempenski Hotel, Dallas, Tx. (214/386-6000 or 800/426-3135).

8.0 Adjournment - The meeting adjourned at 9:59.

Respectfully Submitted,

H. Stephen Berger
Secretary,
EMC Society Standards Committee

ADDITIONAL ATTACHMENTS:

Attachment F - Address List

Attachment G - MUG Factor List

ACTION ITEMS

ARISING AT THE

AUGUST 17, 1991 EMCS STANDARDS COMMITTEE MEETING

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|-----|-----------------|---|----------------|
| 5.2 | W/G
Chairmen | Consider preparing a Newsletter article on W/G project and how others can get involved. | Due Sept. 1991 |
| 5.4 | Cory | Submit article to Newsletter on awards recipients. | October 1991 |

ARISING AT THE
NOVEMBER 11, 1991 EMCS STANDARDS COMMITTEE MEETING

3.0	W/G Chairmen	Submit report for minutes.	Open
3.01	Knowles	Submit PAR for 299.	December 1991
3.01	Sec	Mail new 299 PAR to committee for review.	December 1991
3.1	Kerns	Submit report for 475.	December 1991
3.2	Parker	Correct PAR as recommended by EMCS Std. Com.	January 1991
3.2	Parker	Add MIL STD 1377 contact to Tsaliovich coordination list.	December 1991
3.3	Sec	Send H. Denny PAR form.	Complete
3.4	Tsaliovich	Send chair revised PAR reflecting new scope.	December 1991
3.5	Std. Com.	Return P1140 ballot within 2 weeks of receipt.	Complete
3.5	Sec.	Send letter to probe manufacturers inviting their participation on P1140.	December 1991
3.6	Egan	Submit report for P1190.	December 1991
5.3	Std. Com.	Review Iso. Probe PAR & return comments to E. Bronaugh.	January 1991
5.5	Knowles Butler	Develop policy for consideration on single chairmen handling more than one W/G.	November 1991
5.6	Sec.	Send packet containing all PAR's to committee for review.	Complete
5.6	Committee	Return comments to sec.	January 1991
5.7	Knowles Butler	Develop policy for consideration on criterion for membership on EMCS Std. Com.	January 1991

ARISING AT THE

NOVEMBER 11, 1991 EMCS STANDARDS COMMITTEE MEETING

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|------|--------------|---|---------------|
| 5.8 | Committee | Submit further awards nominations to G. Cory. | November 1991 |
| 5.9 | Bronaugh | Include clear list of EMC standard for inclusion in EMC compendium in minutes. | Complete |
| 5.10 | Sec. | Write W/G chairmen on policy re. release of draft material. | Complete |
| 5.11 | Sec. | Call S. Vogel re. copy of current copyright language. Send to all W/G chairmen to be used in all IEEE drafts. | Complete |
| 6.4 | W/G Chairmen | Send sec. current membership of W/G with MUG factors. | January 1991 |